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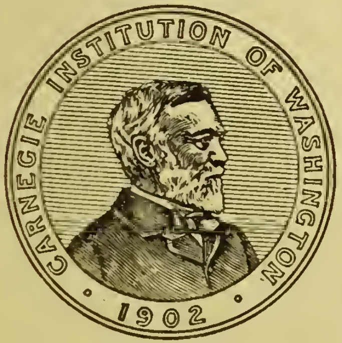

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MOUNT WILSON CATALOGUE

OF

PHOTOGRAPHIC MAGNITUDES IN SELECTED AREAS 1–139

BY

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INTRODUCTION

1. PURPOSE OF THE INVESTIGATION

The *Mount Wilson Catalogue* had its origin in a request by Professor Kapteyn, shortly after the completion of the 60-inch telescope, for assistance in determining the brightness of stars in the Selected Areas. The need was chiefly for magnitudes of faint stars to serve as the basis for a study of stellar distribution to the lowest practicable limit of brightness. The magnitudes were to be photographic, on the scale of Pogson, referred to the international zero point. The fields to be observed were the 139 Areas on and north of declination $-15°$.

The first step in the undertaking was to photograph each Area with the 60-inch reflector, with an exposure of one hour on a Lumière Σ plate. These photographs, referred to below as the "long-exposure" plates, were made by Messrs. Babcock and Fath during the years 1909-1912. Except for a few fields, the 60-minute exposure was followed by one of 3 minutes to aid in extending the scale to the faintest stars. Upon completion of the photographs, positive copies with an enlargement of one-third were made from the original negatives for use at Mount Wilson, while the originals were sent to the Astronomical Laboratory at Groningen for measurement and reduction. About a dozen of these photographs were subsequently repeated by Seares, usually because of unsatisfactory atmospheric conditions at the time the originals were made.

The second step was that of providing suitable standards of magnitude in each of the 139 Areas for the reduction of the long-exposure photographs. This, however, developed into two separate investigations of large extent, the first relating to the magnitude scale of the Polar Sequence, the second, to the determination of the standards themselves.

At the time observations were begun, the methods of photographic photometry were little developed and their reliability was unknown. Much experimental work had been done at the Harvard Observatory, and accordant provisional results for the magnitudes of the Polar Sequence had been published in *Harvard Circular*, No. 170, but none of the methods had been tried with a large reflector. A preliminary investigation with the 60-inch telescope was accordingly begun in 1910 to determine the best method of establishing the scale over a long interval of brightness. It was found that wire-gauze screens and circular or annular diaphragms of various sizes, used in combination with the full aperture, gave nearly the same result, whence it was inferred that differences in the diffraction pattern, which might well affect measures made with diaphragms, could be neglected. For ease of comparison with the Harvard magnitudes of the Polar Sequence, all the early Mount Wilson measures were made on stars near the Pole. These measures soon brought to light a divergence between the Harvard and Mount Wilson scales, amounting to 7 per cent for stars brighter than the eleventh magnitude and to even more for those fainter than the sixteenth magnitude. Between these two magnitudes, however, the scales were found to be parallel, with a zero-point difference of 0.40 mag.[1] This necessitated a careful investigation of the whole question and an independent determination of the scale of the Polar Sequence. The results, which include both photographic and photovisual magnitudes, fully confirm the provisional measures.[1]

---

[1] *Mt. Wilson Contr.*, Nos. 70, 80; *Astrophysical Journal*, 38, 241, 1913; 39, 307, 1914.
Mt. Wilson Communications, No. 8; *Proceedings of the National Academy of Sciences*, 1, 309, 1915.

In the meantime, a revision and extension of the Harvard measures in *Harvard Circular*, No. 170 had led to the results published in *Harvard Annals*, **71**. With the aid of the observational details given in that volume and the color indices of the individual stars derived from the Mount Wilson photographic and photovisual magnitudes, it was possible to reduce the Harvard magnitudes to the color system of the reflector. The remaining scale difference was then found to be

$$MW - H = + 0.061 (H - 6)$$

for $H < 10$, and a constant, $+ 0.24$ mag., for $H = 10$ to 16.

Lack of independent confirmation of these results led Seares and M. Humason in 1922 to re-examine the photographic and photovisual scales in the critical region of the bright stars.[2] The 10-inch Cooke refractor, which had not been used in the earlier investigations, and a wire-gauze screen were employed. The reduction constant of the screen used for these observations (3.02 mags.) was carefully determined from measures of Polar Sequence stars between the tenth and sixteenth magnitudes, where the slope of the scale was not in question. No appreciable systematic deviation from the earlier results was found. All the measures were then combined into mean values which represent the finally adopted Mount Wilson magnitudes for the Polar Sequence.[3] Confirmatory evidence was obtained by other observers about the same time, notably at Harvard and at Greenwich; and in 1922 the Commission on Stellar Photometry proposed a scale, based on all the data then available, which was adopted by the International Astronomical Union at the meeting at Rome in the same year. Aside from small accidental differences affecting the magnitudes of individual stars, the international scale is sensibly identical with that determined at Mount Wilson.

These circumstances are of interest, not because the scale of the Polar Sequence is it any sense the basis of the scale of the present *Catalogue*—in fact, the magnitudes of stars an the Pole have been used only to determine the zero point for the different Areas—but because the methods used to establish the scale of the *Catalogue* were the same as those successfully applied in the case of the polar stars. That a similar success has probably been attained in the *Catalogue* is indicated by the comparison of results given in sections 11 and 12.

A matter that had also to be investigated with care was the correction for distance from the optical axis which must be applied to measures of stars photographed with the 60-inch reflector. Since this correction depends on the focal ratio, it had to be determined for each of the apertures used. For the diaphragms its values are small, and in some cases negligible within the limits of the adopted field; but for the full aperture (ratio 1 to 5) the correction is large and varies rapidly with the distance. Further, the correction also depends on the size of the image and hence, unless accurately determined, becomes a source of systematic error affecting the magnitudes.

The relationship between the various contributing factors is still further complicated by the fact that the correction is seriously modified, especially for the full aperture, by deformations of the large mirror which result from any sudden change in temperature. When these changes occur, the disturbances are very troublesome and greatly increase the labor of deriving normal values of the correction. In order to provide an abundance of images for measurement, special photographs of rich fields were used to obtain provisional results; but the revision which led to the adopted values became an integral part of the investigation of the Polar Sequence.

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[1] *Mt. Wilson Contr.*, Nos. 97, 98; *Astrophysical Journal*, 41, 206, 259, 1915.

[2] *Mt. Wilson Contr.*, No. 234; *Astrophysical Journal*, 56, 84, 1922.

[3] *Mt. Wilson Contr.*, .No 235; *Astrophysical Journal*, 56, 97, 1922.

2. PHOTOGRAPHS FOR MAGNITUDE SCALE

In the meantime, a program for the determination of standard magnitudes in the Selected Areas had been arranged and observations were in progress. The exposure time for the photographs to be used in deriving the magnitude scale was determined by the fact that the scale fixed by a group of standards can be extended downward with satisfactory accuracy about one magnitude by means of a long exposure on a single plate. Since the long-exposure photographs had been exposed 60 minutes, a maximum of 15 minutes was accordingly adopted for deriving the standards themselves. Since polar comparisons of this length are troublesome, it seemed best not to attempt to transfer the scale of the Polar Sequence to the individual Areas, but instead to establish the scale in each Area independently, by comparing exposures of the same length made with full and reduced apertures, and to refer the results to the international zero point by means of zone and polar comparisons of short exposure.

In order that the standards might cover a wide interval in brightness, photographs of 2 minutes exposure were also included in the program of diaphragm plates; and further diversification was obtained by using diaphragms differing considerably in size and character in making the reduced-aperture exposures. With rare exceptions, the images of the brightest stars in the field were thus brought within the limits of measurable size. This arrangement also had the advantage that residual effects on the scale arising from differences in diffraction pattern and from uncertainties in the distance correction were much reduced.

As a general precaution, the exposures on each plate were made in a symmetrical order. This doubles the number of images for measurement, greatly reduces the errors arising from changes in gradation and in atmospheric conditions, and practically obviates the danger of mistaking a defect in the film for the image of a star whose brightness is near the limiting magnitude.

The program of exposures finally adopted for the determination of the scale in each Area was as follows:

Exposure	Apertures	No. Plates
15^m	60, *S*, *S*, 60	1
15	60, 32, 32, 60	1
2	60, 32, 14, 9, 9, 14, 32, 60	2

Under "Apertures," *S* indicates a 60-inch wire-gauze screen, while the numbers are the diameters of the various apertures, expressed in inches. The photographs for each Area were taken on at least two different nights, a plate of 15 minutes exposure and one of 2 minutes usually being made on the same night.

The photographs were taken with a plate-holder base provided with an additional slide, controlled by a screw with a graduated head. The plate-holder could thus be shifted between exposures without disturbing the adjustment of the guiding microscope.

In photometric observations with the 60-inch reflector the Newtonian flat and its cell are blocked out by an opaque circular screen, 23 inches in diameter, mounted centrally over the end of the tube. The "full" aperture of 60 inches and the 32-inch diaphragm are thus annular openings. In order to clear the central screen, the 14- and 9-inch diaphragms were necessarily placed in an eccentric position over the end of the tube. These diaphragms were always shifted in position between the two exposures on any plate, by rotation about the optical axis.

The reduction constants [1] for the various apertures are:

Aperture	*S*	32	14	9
Reduction Constant	3.06	1.96	2.97	3.93

3. PHOTOGRAPHS FOR ZERO POINT

The relative magnitudes derived for each Area by combining the full- and reduced-aperture exposures were referred to the international zero point by means of zone and polar comparisons. Each Area was connected with each of the adjacent Areas of the same zone by two photographs of multiple exposure. For any pair of adjacent Areas, the arrangement of the exposures, which were always 2 minutes with the full aperture, was, First plate: A_1, A_2, A_2, A_1; Second plate: A_2, A_1, A_1, A_2.

Each zone, except that at declination $-15°$, was connected directly with the Pole at six points, separated by approximately four hours in right ascension. The zone at $-15°$ was similarly connected with the zone at 0°. Three polar comparisons were made for each of the six points in the 0° zone, and two for all of the other zones. These exposures, which were also 2 minutes with the full aperture, were usually arranged in the order, A, Pole, Pole, A, although the initial and final exposures were sometimes on the Pole. In so far as possible, the intercomparison exposures were made when the two fields compared were at equal altitudes; but the exigencies of a complicated program of observing did not always admit close compliance with this condition.

The subsequent identification of stars on the comparison plates was greatly facilitated by shifting the plate between exposures in the direction of right ascension for one field, and of declination for the other. The orientation of any pair of images thus indicates the field to which the star belongs.

4. RECORD OF PLATES

The numbers of photographs required for the various parts of the program, exclusive of repeated plates, were:

Long-exposure plates	139
Diaphragm plates	556
Zone comparisons	288
Polar comparisons	80
Total	1063

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[1] For details, especially those relating to the determination of the constant of the wire-gauze screen, see *Mt. Wilson Contr.*, No. 80; *Astrophysical Journal*, 39, 307, 1914.

TABLE I

Journal of Observations

Plate	Date	Field	Seeing	Plate	Date	Field	Seeing	Plate	Date	Field	Seeing
42	1909, Feb. 25	106	VG	468	1911, Aug. 27	65	3	1064	1913, Feb. 9	75	4
44	26	124	. . .	469	27	85	3	1065	9	80	3
62	Mar. 15	78	F	470	27	86	2–3	1066	9	80	3
76	April 21	99	P	471	27	68	3	1067	9	81	4
77	21	55	F	472	27	94	2–3	1068	9	81	4
80	22	100	F	473	28	62	2–3	1069	9	82	4
81	22	104	F	474	28	63	2–3	1070	10	97	4
84	May 8	77	VG	475	28	64	1	1071	10	97	4
86	9	57	P	477	28	118	2	1072	10	76	6
94	25	59	VG	478	29	66	2	1073	10	76	5
96	June 6	32	7	479	29	67	2	1074	10	82	5
98	7	105	6	480	29	69	2–3	1075	10	83	5
100	8	15	4	481	29	70	2	1076	10	83	4
104	July 9	16	3–2	482	29	119	1–2	1077	10	84	4
114	25	39	5	483	30	6	2	1078	11	97	3
115	25	40	5	484	30	2	2–3	1079	11	98	3
193	1910, Mar. 5	54	3–4	485	30	3	2–3	1080	11	98	3
194	5	52	3	486	30	8	2	1081	11	99	3
332	Dec. 30	50	0–2	487	31	1	3	1082	11	99	2–3
333	30	51	0–2	488	31	20	3	1083	11	100	2
334	31	46	1	489	31	21	4–5	1084	11	100	2
335	31	49	2–1	490	31	22	3	1085	11	78	2
336	31	53	2–3	491	Sept. 1	9	3	1087	11	104	1–2
337	31	56	2	492	1	23	2–3	1089	11	105	2
338	31	80	1–2	493	1	24	3	1090	12	74	3
339	1911, Jan. 1	47	3–2	494	2	10	0–1	1091	12	74	2–3
340	1	48	2–4	495	2	25	0	1092	12	75	2–3
342	1	97	1	497	Nov. 24	115	3	1093	12	75	4
343	1	101	1	498	Dec. 15	26	2–1	1094	12	76	3–4
344	1	103	2	499	15	27	1–0	1095	12	76	3
345	1	81	0–2	501	15	30	1–0	1096	12	79	3–4
346	2	45	1	504	18	4	1–0	1097	12	79	4
347	2	95	0–1	506	18	13	1	1098	12	80	3–4
350	Feb. 5	75	2–3	507	18	5	2	1099	12	80	2–3
351	5	128	1–2	508	18	14	1–2	1100	12	81	3
352	5	129	1	509	19	117	1	1101	12	81	3
353	5	130	1	510	19	71	1	1102	April 8	1	4–3
418	April 25	58	4	511	19	74	2	1103	8	1	4
421	May 27	82	2	512	19	98	2–3	1104	8	4	5
422	27	131	3	513	1912, Jan. 19	72	2	1105	8	4	5
423	27	133	4	514	19	121	2	1106	8	5	4
424	27	135	3	515	19	123	2–3	1107	8	5	4
425	28	83	2	516	19	76	2–3	1108	8	6	4
433	July 27	34	3	517	19	126	2	1109	8	6	3–4
435	27	37	3	518	20	120	2–3	1110	8	7	4
436	27	41	4	519	20	122	2–3	1111	9	4	4
437	27	42	3	521	20	125	2–3	1112	9	4	4
439	28	38	3	522	20	102	2–3	1113	9	5	4
440	28	43	3	523	Feb. 15	31	2	1114	9	5	4
441	28	44	3	524	16	28	1–2	1115	9	6	3
442	29	17	1	525	16	35	2	1116	9	6	4–3
444	29	18	0–1	526	April 16	29	0–1	1117	9	15	4–3
445	29	19	0–1	528	16	33	1	1118	9	15	4
447	30	111	1–2	529	18	60	2	1119	9	16	4
448	30	112	1–2	531	20	84	0–1	1120	9	16	5
450	31	134	1–2	533	20	107	1	1121	10	1	4
451	31	136	2	534	20	132	1	1122	10	1	5
452	31	137	2–3	535a	May 16	61	3–4	1123	10	12	4
453	31	138	2–3	535b	17	79	3	1124	10	12	5
454	Aug. 1	87	4	1036	1913, Jan. 10	79	4	1125	10	13	5
455	1	113	2	1037	10	79	4	1126	10	13	6
456	1	139	3	1048	11	77	4–3	1127	10	14	6
459	2	116	2–3	1049	11	77	3	1128	10	14	6
460	3	88	2–3	1050	11	78	3	1130	10	16	4
461	3	89	2–3	1054	12	51	7	1131	10	7	4
462	3	90	2	1055	12	51	7	1132	11	12	5
463	26	108	3–4	1059	Feb. 9	73	3–5	1133	11	12	5
464	26	109	3	1060	9	73	5	1134	11	13	5
465	26	91	3	1061	9	74	5	1135	11	13	5
466	26	92	3	1062	9	74	5	1136	11	14	5
467	26	93	4	1063	9	75	4	1137	11	14	4

TABLE I—Continued

Plate	Date	Field	Seeing	Plate	Date	Field	Seeing	Plate	Date	Field	Seeing
1138	1913, April 11	15	3	1214	1913, June 29	62	6	1412	1914, Jan. 31	2	5
1139	11	15	3	1215	30	58	4	1413	31	3	7
1140	11	7	3	1216	30	58	4	1414	31	3	6
1141	11	7	4	1217	30	60	6	1415	31	10	6
1142	May 9	77	4–3	1218	30	60	6	1416	31	10	6
1143	9	77	3	1220	30	62	3	1419	31	28	6
1144	9	78	3	1221	30	63	5	1420	31	28	6
1145	9	82	3	1222	30	63	6	1421	31	29	6
1146	9	82	3	1223	30	64	6	1422	31	29	6
1147	9	83	3	1224	July 1	57	1–2	1423	31	30	6
1148	9	83	3	1227	Aug. 5	61	6	1424	31	30	7
1149	9	84	5	1228	5	61	7	1425	Feb. 28	49	6
1151	10	103	5	1231	5	38	6	1426	28	49	6
1152	10	103	5	1232	5	38	5	1427	28	73	5
1153	10	104	5	1233	5	41	6	1430	28	51	6
1154	10	104	6	1234	5	41	5	1431	28	51	4
1155	10	107	6	1235	5	42	6	1432	28	52	4
1156	10	107	5	1236	6	59	6	1433	28	52	4
1157	10	108	4	1237	6	84	7	1434	28	53	5
1158	10	108	4	1238	6	84	7	1435	28	53	5
1159	11	103	8	1239	6	63	7	1436	28	56	4
1160	11	103	8	1240	6	63	7	1437	28	56	5
1161	11	105	8	1241	6	64	6	1440	Mar. 2	53	2–3
1162	11	105, 106	8	1242	6	64	5	1441	2	54	3
1163	11	105	8	1243	6	65	5	1442	2	54	3
1164	11	107	7	1244	6	65	5	1443	2	31	4
1165	11	107	8	1246	8	85	3	1444	2	31	4
1166	11	108	6	1259	8	68	4	1445	3	9	4
1167	12	106	3	1260	9	85	4	1447	3	11	5
1168	12	106	2	1264	9	89	6	1448	3	11	5
1170	12	108	1	1265	9	89	6	1449	3	28	5
1171	29	30	4	1266	9	91	6	1450	3	28	5
1172	29	30	4	1267	9	91	6	1451	3	29	6
1173	29	31	4	1276	Sept. 3	2	5	1452	3	29	6
1174	29	31	4	1286	4	2	4	1832	Aug. 24	16	7
1175	29	33	6	1294	5	2	2	1835	24	42	5
1176	29	36	3	1315	Oct. 3	17	3	1836	24	42	5
1179	30	33	5	1316	3	17	2	1837	24	43	4–5
1180	30	35	6	1317	3	18	2–1	1838	24	43	5
1181	30	35	6	1319	6	38	4	1843	25	19	2–3
1182	30	36	5	1320	6	38	4	1844	25	19	3
1183	31	32	5	1321	6	39	5–4	1849	25	8	3
1184	31	32	4	1322	6	39	4	1850	25	8	3
1185	31	34	5–6	1323	6	40	4	2066	Oct. 17	8	3–4
1186	31	34	7	1324	6	40	4	2067	17	8	4
1187	31	37	7	1325	6	41	4	2068	17	9	4–5
1188	31	37	7	1326	6	41	4	2069	17	9	5
1189	June 1	55	4	1336	Nov. 3	17	3	2070	17	11	5–6
1190	1	55	4	1337	3	17	2–3	2071	17	11	5–6
1191	1	56	4	1338	3	40	3	2074	18	113	6
1192	1	56	4	1339	3	40	2	2075	18	113	6
1193	1	58	3–4	1340	3	42	3	2109	19	68	4
1194	1	60	4	1341	3	43	4	2110	19	68	4
1195	1	60	4	1342	3	43	4	2113	19	92	5
1196	1	61	5	1344	4	39	3	2114	19	92	5
1197	27	33	2	1345	4	39	4	2134	24	86	3–1
1198	27	33	1–2	1353	5	18	3	2135	24	86	2
1199	28	32	2	1354	5	18	4	2136	24	64	2
1200	28	32	3	1389	1914, Jan. 29	96	3	2139	24	71	2
1201	28	34	3	1390	29	96	3	2141	24	73	2
1202	28	34	4	1391	29	97	3	2146	25	91	2–3
1203	28	35	4	1395	29	101	3	2147	25	91	2
1204	28	35	4	1396	29	101	4	2148	25	70	2–3
1205	28	36	3	1397	29	102	4	2149	25	70	2–3
1206	28	36	3	1398	29	102	4	2150	25	71	3
1207	29	57	5	1399	30	3	4	2222	Nov. 20	101	3
1208	29	57	3	1400	30	3	4	2312	1915, Jan. 19	98	4–3
1209	29	58	4	1403	30	25	6	2314	19	102	3–4
1210	29	59	6	1408	30	54	4	2315	19	106	3–4
1211	29	59	6	1409	30	54	4	2318	Mar. 15	100	1
1212	29	61	6	1410	30	55	4	2332	16	52	1–2
1213	29	62	7	1411	30	55	4	2333	16	53	1–2

TABLE I—Continued

Plate	Date	Field	Seeing	Plate	Date	Field	Seeing	Plate	Date	Field	Seeing
2334	1915, Mar. 16	78	1–2	2528	1915, July 15	62, 61	6	2686	1915, Sept. 12	90	2–3
2346	19	98	2–1	2529	15	62, 63	6	2704	Oct. 2	18, 17	3–4
2347	19	99	2	2530	15	110	5	2707	2	42, 43	2–3
2355	April 15	14, P	1–2	2531	15	110	5	2708	2	21, 20	2–3
2356	15	32, P	1–2	2532	15	110	5	2709	2	21, 22	2–3
2365	16	12	3	2533	15	87	4	2710	2	8, 19	2–3
2369	16	12, P	2	2534	15	88	4	2711	2	8, 9	2–3
2370	16	5, P	2	2535	16	59, 58	6	2712	2	2, 3	2–3
2373	16	36	2–3	2536	16	59, 60	6	2713	2	2, P	2–3
2374	17	99	2–3	2539	16	107, 108	6	2714	2	8, P	2–3
2375	17	100	2–3	2541	16	109, 110	6	2715	2	20, P	2–3
2376	17	101	2	2542	16	110	7	2742	3	9, 8	6
2377	17	102	2	2544	16	111	5	2743	3	23, 24	6
2378	17	106	3	2545	16	111	5	2744	3	23, 22	6
2379	17	85	3	2546	16	114	5	2745	3	9, 10	6
2380	17	86	2	2547	17	108, 107	8	2746	4	38, 39	5–6
2381	17	86	3	2548	17	83, 82	8	2747	4	39, 38	5–6
2382	17	87	3	2549	17	84, 83	8	2748	4	39, 40	5–6
2384	18	77, 78	3	2550	17	84, 85	8	2750	4	64, 65	5–6
2385	18	101, 102	3	2551	17	85, 84	8	2755	4	41, 40	1–2
2386	18	127	3	2552	17	85, 86	8	2756	4	41, 42	1–2
2387	18	104, 105	3	2553	17	87	7	2757	4	18, P	1
2388	18	106, 107	4	2554	17	87	6	2758	4	45, 44	1
2389	18	82, 83	4	2555	17	111	6	2759	4	45, 46	1
2390	18	83, 84	4	2556	17	111	5	2761	4	22, 23	2–3
2392	18	108, 109	4	2557	17	112	5	2762	4	47, 46	3–4
2393	18	109	4	2563	Aug. 12	88	4	2763	4	47, 48	3–4
2394	18	109	3	2564	12	88	4	2764	4	24, 23	3–4
2395	19	101, 100	6	2565	12	89	4	2765	4	24, 25	3–4
2396	19	102, 101	5	2572	13	108, P	2–3	2766	12	110, 111	5
2397	19	102, 103	5	2578	13	18	4	2767	12	110	5
2398	19	78, 77	5	2579	13	19	4	2768	12	90, 89	5
2399	19	78, 79	5	2583	14	90	4	2769	12	90, 91	5
2400	19	107, 106	7	2586	14	113	4–5	2770	12	90	6
2403	19	109	7	2591	14	113, 112	5	2771	12	68, 91	6
2404	19	109	7	2594	14	113, 114	6	2772	12	68, 69	6
2453	June 6	6, P	3–4	2599	14	88	6	2773	12	68	5
2458	7	104, P	2–3	2603	14	114	4	2774	12	69	6
2469	15	34, 33	6	2605	14	115	4	2775	12	69	6
2470	15	34, 35	6	2611	15	112	5	2776	12	70	6
2472	15	15, 14	6	2615	15	113	3	2777	12	70	6
2474	15	36, 35	5	2622	15	89	2–3	2778	12	73	4
2475	15	36, 37	5	2627	15	90	2–3	2778a	13	64, 63	3
2476	15	37	5	2642	16	112	3	2779	13	88, 89	3
2477	16	33, 32	4	2643	16	114	3	2780	13	65	2
2478	16	33, 34	4	2646	Sept. 7	108, P	3	2781	13	66, 65	2
2479	16	35, 34	4	2654	8	110, 109	4	2782	13	66, 67	2
2480	16	35, 36	4	2658	11	109, 108	3	2783	13	66	1–2
2481	16	16, 15	4	2659	11	86, 85	3	2784	14	66	3
2482	16	16, 17	4	2660	11	86, 87	3	2785	14	67	3
2483	16	37, 36	4	2661	11	111, 110	3	2786	14	67	2–3
2484	16	37, 38	4	2662	11	111, 112	3	2787	14	67, 66	3
2486	17	14, 15	3	2663	11	112	3	2788	14	67, 44	3
2487	17	37	4	2664	11	88, 87	3	2789	14	91, 90	3
2488	17	37, 38	5	2666	11	65, 64	3	2790	14	91, 68	3
2489	17	17, 16	4	2667	11	65, 66	3	2791	14	115, 114	3
2490	17	17, 18	4	2668	11	65	3	2793	14	115	3
2493	July 5	81, P	1–2	2670	11	66	3	2794	14	115	3
2494	5	57, P	1–2	2671	11	67	2	2795	14	93	4
2510	6	85, P	3	2673	12	61, 60	3	2796	14	93	4
2511	6	61, P	3	2674	12	61, 62	3	2797	14	95	4
2512	6	36, P	5	2675	12	63, 62	4	2798	14	96	3–4
2513	6	16, P	5	2676	12	63, 64	4	2799	Nov. 11	40, 39	3
2514	6	1, P	5	2677	12	87, 86	3	2800	11	40, 41	3
2517	7	14, P	3	2678	12	87, 88	3	2801	11	18, 19	4
2519	7	85, P	2–3	2679	12	112, 111	3	2803	11	7, 2	4
2520	7	61, P	3	2680	12	112, 113	3	2804	11	20, 43	4
2522	7	36, P	3	2681	12	89, 88	3	2806	11	20	3
2523	7	16, P	3	2682	12	89, 90	3	2807	11	20	3
2525	15	58, 59	6	2683	12	114, 113	3	2808	11	21	3
2526	15	60, 59	6	2684	12	114, 115	3	2809	11	21	3
2527	15	60, 61	6	2685	12	114	2–3	2810	11	9	4

TABLE I—Continued

Plate	Date	Field	Seeing	Plate	Date	Field	Seeing	Plate	Date	Field	Seeing
2811	1915, Nov. 11	10	6	2933	1916, Mar. 9	24	5	3460	1916, Sept. 23	94, 93	4
2812	11	11	4	2934	9	25	5	3461	23	94, 95	4
2813	11	11, 12	4	2935	9	27	5	3462	23	94	4
2814	12	2, 7	2	2936	9	27	5	3466	24	44	5
2815	12	19, 18	2–3	2937	9	13, 12	6	3467	24	44	6
2816	12	19, 8	3	2938	9	13, 14	6	3468	24	44, 67	6
2817	12	19	3	2939	9	5, 4	6	3469	24	44, 45	6
2818	12	42, 41	2	2940	9	5, 6	6	3471	24	69, 68	6
2819	12	43, 42	1	2941	9	32, 31	6	3472	24	69, 70	6
2820	28	112, P	5	2942	9	32, 33	6	3473	24	93, 92	6–7
2821	28	89, P	5	2943	9	15, 16	6	3474	24	93, 94	6
2824	28	65, P	6	2944	9	5, P	6	3475	24	95, 94	6
2825	28	40, P	6	2945	9	32, P	5	3476	24	95, 96	6
2826	28	18, P	7	2946	9	57, P	4	3486	Oct. 19	20, 43	4
2827	28	67	6	2947	10	4, 3	4	3488	19	21, 20	4–5
2828	28	44	6	2948	10	12, 11	4	3489	19	22, 21	5
2829	28	44	6	2949	10	12, 13	4	3496	19	4, P	5
2834	28	26	6	2950	10	25, 24	3	3499	19	1, P	5
2836	28	26, 25	5	2951	10	26	4	3506	20	7, P	2
2837	28	25	5	2952	10	10, P	4	3510	20	92, 115	2
2850	29	74, 73	5	2953	10	28, 27	4	3513	31	7, 6	5
2851	29	26, 25	3–4	2954	10	28, 29	4	3516	31	20	3–4
2852	29	26, 27	3–4	2955	10	30, 29	4	3517	31	21	4–5
2853	29	26	3–4	2956	10	30, 31	4	3518	31	22	5–6
2854	29	11, 10	3	2957	10	31, 32	4	3519	31	22	5
2859	30	112, P	7	2958	10	28, P	4	3520	31	23	5
2864	30	89, P	6	2959	10	53, P	3	3521	31	23	5
2865	30	65, P	6	2960	10	14, 13	3	3522	31	3, 4	5
2866	30	40, P	6	2961	10	6, 5	3	3523	31	3, P	4
2872	30	48	5	2962	10	6, 7	3	3524	31	10, P	4
2873	Dec. 12	20	1	2963	10	7, P	4	3535	Nov. 2	3, 2	3
2884	1916, Feb. 1	25	2	2967	27	100, 101	2–3	3579	1917, Jan. 26	69	3
2885	1	25, 26	2	2971	28	77, P	1–2	3580	26	69	3
2886	1	26	3–2	2973	28	80, 81	2	3581	26	45	3
2887	1	29, 28	3–2	2974	28	81, 82	1–2	3582	26	46	4
2888	1	29, 30	3–2	2975	29	48	3	3583	26	46	3
2892	7	93	4	2976	29	50	3	3584	26	72	3
2893	7	94	4	2978	29	52, 53	3	3585	26	48	3
2894	7	95	3	2979	29	103, 104	3	3586	26	50	4
2896	8	45	2–3	2980	29	103, 102	4	3587	26	51, 52	4
2897	8	48	2–3	2983	29	57, 56	1–2	3588	26	80, 79	4
2898	8	49	3	2984	29	57, 58	1–2	3590	27	93	4
2899	8	50	3	2991	April 7	77, 76	4	3592	27	45	3
2900	8	52	2	2992	7	79, 78	4	3593	27	46	3
2901	8	55, 54	2	2993	7	79, 80	4	3594	27	48, 47	3
2904	9	21	3	2994	7	81, 80	3	3595	27	48, 49	3
2905	9	22	3	2999	7	85	3	3596	27	50, 49	4
2906	9	22	3	3002	8	100, 99	3	3597	27	50, 51	4
2907	9	24	3	3003	8	76, 75	3–2	3598	27	75, 76	4
2908	9	27	3	3004	8	76, 77	3–2	3604	28	94	3
2909	9	27	3	3014	9	52, 51	4	3605	28	45	2–3
2910	9	54, 53	3	3025	25	27, 26	2	3606	28	46, 45	3
2911	9	54, 55	4	3026	25	27, 28	2	3607	28	46, 47	3
2912	9	56, 55	4	3028	25	4, 5	2–1	3608	28	46	3
2913	9	56, 57	4	3029	25	31, 30	2–1	3609	28	47	3
2914	9	57	4	3147	June 26	105	4	3611	28	49, 48	2
2916	Mar. 8	96	2	3208	July 6	20, P	5	3612	28	49, 50	2–1
2917	8	96	2–3	3226	7	2, P	6	3614	Feb. 27	71	1
2918	8	49	2	3227	7	8, P	6	3615	27	24	3
2919	8	50	2	3228	7	45, P	6	3617	27	51, 50	3
2920	8	53, 52	2	3229	7	69, P	6	3618	27	75, 74	3
2921	8	53, 54	2	3230	7	92, P	6	3619	27	127	2
2922	8	55, 56	2	3242	8	45, P	6–7	3620	27	127	2–1
2923	8	104	2–3	3243	8	45	6–7	3621	Mar. 17	47	4
2924	8	104, 103	2	3367	Aug. 21	59	4	3622	17	23	3
2925	8	105, 104	2	3370	21	114	5	3623	17	99, 98	3
2926	8	106, 105	2	3371	21	115	5	3624	17	99, 100	3
2927	8	82, 81	2	3372	21	92	6	3625	17	126	4
2928	8	58, 57	2	3373	21	92	5	3627	17	128	4
2929	9	10, 9	5	3378	21	71	5	3628	17	128	4
2930	9	10, 11	5	3409	25	92, 115	5	3629	17	130	4
2931	9	10	6	3410	25	92, 93	6	3630	17	130	3

TABLE I—Continued

Plate	Date	Field	Seeing	Plate	Date	Field	Seeing	Plate	Date	Field	Seeing
3632	1917, Mar. 17	132, 131	3	4158	1917, Oct. 23	123	2–1	4551	1918, July 13	137, 138	6
3634	18	23	2–3	4271	Dec. 9	125	3	4552	13	137	6
3635	18	73, 74	3	4278	10	116	1–2	4561	14	137	3–4
3636	18	74, 75	4	4286	19	118	2	4562	14	138	3–4
3637	18	126	3–4	4287	19	119	1–2	4564	14	139	4
3638	18	126	4	4297	19	125	1	4565	14	139	3
3639	18	128	3	4298	19	125, 126	1	4579	15	137	5
3640	18	128	3	4313	20	128, 127	6	4580	15	138	4
3642	19	47	2–3	4314	20	128, 104	6	4581	15	138	3
3643	19	98, 97	3	4316	21	117	6	4582	15	138, 137	3
3644	19	98, 99	3	4317	21	118	6	4583	15	139	3
3645	19	125	3	4318	21	120	5	4584	15	139	3
3646	19	125	3	4341	1918, Feb. 5	72, 73	3	4605	29	138	5
3647	19	127	3	4354	6	94	3–1	4689	Sept. 6	116	6
3648	19	127	3	4355	6	95	3–1	4690	6	116	5
3655	27	4, P	5	4356	15	45, 46	4	4691	6	117	5
3668	28	24, P	3–2	4359	15	72	4–3	4692	6	119, 118	5
3672	28	28, P	4	4360	15	72	4	4693	6	119, 120	5
3689	April 19	133, 132	3	4361	15	73, P	4	4698	7	117	2–3
3719	25	126	2–3	4363	15	49, P	3	4699	7	117	2–1
3720	25	126, 125	2–3	4369	15	12, P	3	4701	7	118	1–2
3721	25	126, 127	2–3	4378	16	95	4	4707	8	119	7
3722	25	128, 127	2	4379	16	72	4	4708	8	73, 72	7
3723	25	128, 129	2	4392	April 6	6, P	1–2	4709	8	96, 95	7
3732	May 15	129	2	4398	6	132, 108	1	4710	8	96, 97	7
3733	15	129	2	4399	6	132	1	4716	9	119	3
3737	16	127, 126	3	4403	7	131	2	4718	Oct. 4	118	1
3739	16	129	3	4404	7	131	3	4720	9	119	3
3740	16	129, 128	4	4405	7	131, 132	3	4721	9	120	3
3741	16	129, 130	5	4406	7	133	3–4	4722	9	120	3
3742	16	129	5	4408	16	49, P	2	4723	9	121	3
3743	16	130	5	4411	16	100, P	2	4724	9	121	3
3744	16	130	5	4420	16	131	4	4727	10	71, 70	1
3745	16	85	3	4421	16	132	4	4728	10	71, 72	1
3746	16	62	2–3	4423	17	73, P	2–1	4729	10	96, 120	1
3747	16	66	3	4425	17	100, P	2–1	4731	11	120, 96	3
3770	27	4, 5	1–2	4427	17	100, P	2–1	4732	11	120	3
3771	27	77, P	1–2	4433	May 15	130, 129	2	4733	11	120, 119	3
3772	27	53, P	1–2	4434	15	130, 129	2	4734	11	120, 121	3
3780	June 14	104, P	3	4435	15	130, 131	2	4735	11	121	3
3782	14	81, P	3	4436	15	131	2	4736	11	122	3
3789	15	104, P	2–3	4437	15	132, 108	2	4737	11	122	3
3799	16	104, 128	2	4438	15	132	2	4744	12	121	5
3839	July 16	135, 134	1–2	4439	15	132	3	4745	12	121, 120	4
3840	16	135, 136	1–2	4440	15	132, 133	3	4746	12	121, 122	3
3842	16	136, 112	3	4445	16	131, 130	2	4750	31	116	2
3845	16	112, P	3	4448	16	133	2	4751	31	96, P	2
3907	Aug. 24	7	3–4	4449	16	133, 134	3	4754	31	96, P	4
3912	24	3, P	4	4450	16	134	2–3	4755	31	122	3–4
3922	25	9	3	4451	16	134	2–3	4756	31	122	3–4
3923	25	24, P	3	4457	17	133	2	4757	31	122, 121	4
3934	26	24	4	4458	17	134	2	4758	31	122, 123	4
3953	Sept. 9	117, 116	2	4459	17	134, 133	2	4759	31	124	4
3954	9	117, 118	2	4460	17	134, 135	2	4771	Nov. 1	123	3
3955	9	116, 92	2	4461	17	134	2	4772	1	123, 122	4
3957	9	92, P	2	4467	June 4	133	3–2	4773	1	123	5
3958	9	70, 69	2	4468	4	135	3–2	4774	1	123, 124	5
3970	10	139, 138	1–2	4469	4	135	3	4781	7	71, 70	3
3971	10	139, 116	1–2	4470	4	136, 135	3	4782	7	71, 72	2
3972	10	92, 116	1–2	4471	4	136, 137	3	4784	7	123	2–1
3973	10	116, 139	2–3	4490	6	135	3	4785	7	124	2–1
3974	10	116, 117	2–3	4491	6	135	2	4786	7	124	2
3976	10	92, P	2–3	4492	6	112, 136	3	4787	7	124, 125	2
3979	10	69, P	2–3	4493	6	136	3	4792	8	96, P	4
3993	11	138, 139	3–4	4512	July 3	108, P	3–4	4796	8	124, 123	2
3998	11	118, 117	2–3	4537	5	108, P	2	4797	8	124, 100	2
3999	11	118, 119	2–3	4539	5	136	2–3	4798	8	124	2
4035	23	22	3	4547	13	136	4	4799	8	124, 125	2
4077	Oct. 12	97, 96	4–5	4548	13	136	6	4801	9	69, P	3
4078	12	97, 98	4–5	4549	13	137	6	4805	9	73, P	4
4147	23	47	3	4550	13	137, 136	6	5096	1919, Oct. 28	124, 100	2

NOTES TO TABLE I

Plate Numbers:—Plates 42-535b belong to the SA series and are long-exposure photographs; all others are of series P and are either diaphragm or comparison photographs, or, in a few cases, long-exposure photographs, repeated because of defects in the original plates. Rejected photographs are not listed.

Field:—The fields observed are designated by the Area number, or in case of exposures on the Pole by the letter P. A double entry in the field column indicates a comparison photograph.

Seeing:—The observations were begun before the scale of seeing now in use had been adopted. For plates 104-535b the scale is 0-5; for the others, excepting the first 10, it is 1-10, the index number increasing with the quality.

Observers:—The first 16 plates are by Babcock; Nos. 193-535b by Fath. The following, 232 plates in all, were taken by Shapley:

2066–2114
2222–2334
2355–2373
2453–2458
2493–2523
2563–2654
2704–2765
2820–2888
2967–2984
3025–3029
3208–3243
3409–3510
3655–3723
3770–3772
3839–3845
3953–3999
4077–4078
4271–4355
4392–4406
4512–4539
4718
4750–4774
5096

The remaining 712 plates are by Seares.

For convenience, the designation "diaphragm plates" is used to denote all photographs involving exposures with reduced aperture, whether the reduction was made with the aid of the diaphragms or by means of the wire-gauze screen.

The long-exposure photographs by Babcock and Fath were finished in 1912. The observations for the diaphragm and comparison photographs were begun in January, 1913, and practically completed in November, 1919. For these the observers were Seares and Shapley. The plates used were partly Seed 27's and partly Seed 30's. All photographs were centered on the central star of the respective Areas.

The several settings of the telescope on each Area required to complete the program were facilitated by charts made from the positive enlargements of the long-exposure plates. These charts also played a useful part in the measurement and reduction of the photographs.

A journal of observations is given in Table I, and the grouping of the scale plates for each Area is shown in Table II. Thus for Area 1 the long-exposure photograph is plate 487; Nos. 1102 and 1121 include 15-minute exposures with the $60-32$ and $60-S$ combinations of apertures, while 1103 and 1122 are the short-exposure diaphragm photographs. The grouping for the zone- and polar-comparison plates is given in Tables VII and VIII (pp. XXIX, XXX). The dates of observation for any Area may be found by reference to Table I.

These tables do not include plates rejected before measurement, but only those used in the preparation of the *Catalogue*. In a few instances the reduction of an accepted plate gave discordant results for the magnitude scale. An additional plate was then exposed, measured, and reduced, the results being combined with the normal complement of exposures. The additional plates are listed in the notes following Tables II, VII, and VIII.

5. MEASUREMENT AND REDUCTION OF PLATES

a. Long-Exposure Photographs.—Most of these photographs, which were measured and reduced at Groningen, include an exposure of 3 minutes in addition to the primary exposure of 60 minutes. The fields measured were $15' \times 15'$ for galactic latitudes less than 40°, and $20' \times 20'$ for higher latitudes. The centers are nearly coincident with the central star of the respective Areas, the exact location being defined in section 8a, page XXXVII. In that section it is further explained that the diameters of all the images were estimated in seconds of arc by means of an ocular scale in the observing microscope of the Repsold measuring machine of the Kapteyn Laboratory. The diameter of the faintest stars on the

TABLE II

Grouping of Photographs used to Determine Relative Magnitudes

Dec.	S. A.	60^{m}	15^{m}	2^{m}
+90°	1	487	1102, 1121	1103, 1122
+75	2	484	1286, 1412	1276, 1294
	3	485	1400, 1414	1399, 1413
	4	504	1104, 1111	1105, 1112
	5	507	1106, 1113	1107, 1114
	6	483	1108, 1116	1109, 1115
	7	3907	1110, 1140	1131, 1141
+60	8	486	1849, 2067	1850, 2066
	9	491	2068, 2810	1445, 2069
	10	494	1416, 2811	1415, 2931
	11	2812	1448, 2070	1447, 2071
	12	2365	1123, 1132	1124, 1133
	13	506	1126, 1134	1125, 1135
	14	508	1127, 1137	1128, 1136
	15	100	1117, 1138	1118, 1139
	16	104	1119, 1832	1120, 1130
	17	442	1316, 1337	1315, 1336
	18	444	1354, 2578	1317, 1353
	19	445	1843, 2579	1844, 2817
+45	20	488	2806, 3516	2807, 2873
	21	489	2808, 3517	2809, 2904
	22	490	2905, 3518	2906, 3519
	23	492	3520, 3634	3521, 3622
	24	493	2907, 3934	2933, 3615
	25	495	2884, 2934	1403, 2837
	26	498	2886, 2951	2834, 2853
	27	499	2908, 2935	2909, 2936
	28	524	1419, 1450	1420, 1449
	29	526	1421, 1451	1422, 1452
	30	501	1171, 1423	1172, 1424
	31	523	1174, 1443	1173, 1444
	32	96	1184, 1200	1183, 1199
	33	528	1179, 1197	1175, 1198
	34	433	1185, 1202	1186, 1201
	35	525	1180, 1203	1181, 1204
	36	2373	1176, 1205	1182, 1206
	37	435	1187, 2487	1188, 2476
	38	439	1231, 1320	1232, 1319
	39	114	1321, 1345	1322, 1344
	40	115	1323, 1338	1324, 1339
	41	436	1233, 1325	1234, 1326
	42	437	1340, 1836	1235, 1835
	43	440	1342, 1837	1341, 1838
+30	44	441	2829, 3466	2828, 3467
	45	346	3581, 3592	2896, 3243
	46	334	3582, 3593	3583, 3608
	47	339	3621, 3642	3609, 4147
	48	340	2872, 2975	2897, 3585
	49	335	1426, 2918	1425, 2898
	50	332	2919, 3586	2899, 2976
	51	333	1054, 1431	1055, 1430
	52	194	1432, 2900	1433, 2332
	53	336	1434, 1440	1435, 2333
	54	193	1408, 1441	1409, 1442
	55	77	1190, 1410	1189, 1411
	56	337	1191, 1436	1192, 1437
	57	86	1208, 2914	1207, 1224
	58	418	1209, 1216	1193, 1215
	59	94	1211, 3367	1210, 1236
	60	529	1194, 1217	1195, 1218
	61	535a	1212, 1227	1196, 1228
	62	473	1213, 3746	1214, 1220
	63	474	1221, 1240	1222, 1239
	64	475	1241, 2136	1223, 1242
	65	468	1243, 2780	1244, 2668
	66	478	2670, 2783	2784, 3747
	67	479	2671, 2786	2785, 2827
+15	68	471	1259, 2773	2109, 2110
+15°	69	480	2774, 3580	2775, 3579
	70	481	2148, 2776	2149, 2777
	71	510	2139, 2150	3378, 3614
	72	513	4359, 4379	3584, 4360
	73	2778	1059, 2141	1060, 1427
	74	511	1061, 1090	1062, 1091
	75	350	1063, 1092	1064, 1093
	76	516	1072, 1095	1073, 1094
	77	84	1048, 1142	1049, 1143
	78	62	1050, 1144	1085, 2334
	79	535b	1036, 1096	1037, 1097
	80	338	1065, 1098	1066, 1099
	81	345	1067, 1100	1068, 1101
	82	421	1074, 1146	1069, 1145
	83	425	1075, 1147	1076, 1148
	84	531	1149, 1237	1077, 1238
	85	469	1246, 2379	1260, 2999
	86	470	2134, 2380	2135, 2381
	87	454	2533, 2554	2382, 2553
	88	460	2534, 2564	2563, 2599
	89	461	1264, 2622	1265, 2565
	90	462.	2686, 2770	2583, 2627
	91	465	1266, 2146	1267, 2147
0	92	466	2113, 3372	2114, 3373
	93	467	2795, 3590	2796, 2892
	94	472	2893, 3462	3604, 4354
	95	347	2797, 4355	2894, 4378
	96	2798	1389, 2916	1390, 2917
	97	342	1070, 1391	1071, 1078
	98	512	1079, 2312	1080, 2346
	99	76	1081, 2347	1082, 2374
	100	80	1084, 2375	1083, 2318
	101	343	1395, 2376	1396, 2222
	102	522	1397, 2314	1398, 2377
	103	344	1151, 1159	1152, 1160
	104	81	1154, 2923	1087, 1153
	105	98	1161, 3147	1089, 1163
	106	42	1167, 2315	1168, 2378
	107	533	1155, 1164	1156, 1165
	108	463	1157, 1166	1158, 1170
	109	464	2393, 2404	2394, 2403
	110	2530	2532, 2767	2531, 2542
	111	447	2544, 2555	2545, 2556
	112	448	2557, 2642	2611, 2663
	113	455	2074, 2615	2075, 2586
	114	2546	2685, 3370	2603, 2643
	115	497	2794, 3371	2605, 2793
−15	116	459	4689, 4750	4278, 4690
	117	509	4691, 4698	4316, 4699
	118	477	4286, 4718	4317, 4701
	119	482	4707, 4720	4287, 4716
	120	518	4318, 4722	4721, 4732
	121	514	4724, 4744	4723, 4735
	122	519	4737, 4755	4736, 4756
	123	515	4158, 4773	4771, 4784
	124	44	4759, 4785	4786, 4798
	125	521	3645, 4297	3646, 4271
	126	517	3625, 3637	3638, 3719
	127	2386	3620, 3648	3619, 3647
	128	351	3628, 3640	3627, 3639
	129	352	3732, 3739	3733, 3742
	130	353	3629, 3744	3630, 3743
	131	422	4403, 4436	4404, 4420
	132	534	4399, 4438	4421, 4439
	133	423	4406, 4467	4448, 4457
	134	450	4450, 4461	4451, 4458
	135	424	4468, 4490	4469, 4491
	136	451	4539, 4547	4493, 4548
	137	452	4549, 4561	4552, 4579
	138	453	4562, 4581	4580, 4605
	139	456	4564, 4583	4565, 4584

Supplementary Plates

S. A. 9 3922; 60 − 32, 15^{m}.
22 4035; 60, 3^{m} and 30^{m}.

S. A. 45 3605, 3581; 60, 32, one exposure each.
85 3745; 60, 3^{m} and 30^{m}.

plate is by no means zero; in fact, from a certain limit of brightness down, the diameter ceases to diminish. For these stars the scale of diameters was prolonged by an estimate of the density of the image, the faintest star on the plate being called −0, while the upward steps were consecutively 0, +0, −1, 1, +1, etc.

To transform these estimates into magnitudes, the results for selected standards, which had been determined at Mount Wilson and forwarded to Groningen (see page XXI), were plotted against the diameters for both the 60-minute and the 3-minute exposures after correction for distance from the center of the plate. The distance correction used was that derived at Mount Wilson, expressed in units of a certain scale (section 5b, page XIX). These scale units were converted into diameters of the Groningen scale by means of plates for which both the diameters of the images and the corresponding readings of the Mount Wilson scale were known. Since the photographs measured at Groningen were exposed longer than the diaphragm plates, standards for the faintest stars were generally not available. To obtain these the curve connecting diameter and magnitude was prolonged by means of the short-exposure images as follows: For Area 4, for instance, the magnitudes corresponding to diameters 5.0, 4.0, ... are those given in Table III. The curve defined by the long-exposure images could be read down to diameter 1.0; that from the short-exposure images, to diameter −0.3, which corresponds to the faintest stars measured. The differences between the magnitudes read from the two curves for the same value of the diameter are thus determined to diameter 1.0. Their values increase with decreasing diameter, and by extrapolation we find 2.68 for diameter 0.0 and 2.70 for diameter −0.3. The addition of these differences to the corresponding magnitudes from the short-exposure curve, which is defined throughout by the standards, gives for the long-exposure curve, for diameter 0.0, magnitude 17.92, and for diameter −0.3, magnitude 18.04. These values provide for the extension of the long-exposure curve to the faintest stars.

Table III

Extension of Scale

Diameter	Magnitude		Difference
	60-Min. Exp.	3-Min. Exp.	
+5.0	15.82	13.36	+2.46
4.0	16.16	13.76	+2.40
3.0	16.57	14.15	+2.42
2.0	17.02	14.51	+2.51
+1.0	17.47	14.87	+2.60
0.0	(17.92)	15.24	(+2.68)
−0.3	(18.04)	15.34	(+2.70)

The other Areas have been treated similarly. In a few cases the short exposure is missing; the curve connecting diameter and magnitude was then simply prolonged as far as diameter −0.3.

The magnitudes of all the stars on the plate corresponding to the estimated diameters were derived from these curves. For the faintest stars only the long-exposure image is visible; for brighter stars the short-exposure image also appears, and the two values of the magnitude then available have been combined with the weights shown in Table IV.

b. Diaphragm Photographs.—Kapteyn's request for standard magnitudes contemplated the observation of only a small number of stars, 25 or 30 in each field. It was soon found, however, that the sensitiveness of the distance correction to slight changes in the figure of the mirror leads to considerable uncertainty in the magnitude scale when the number of stars discussed is small. Since the results of the investigation could be greatly strengthened by observing more stars, it was finally decided to derive magnitudes for all objects appearing on the diaphragm photographs. This meant a great increase in labor, but the gain in precision and in the number of stars having well-determined magnitudes has justified the decision.

In general the measures and reductions made at Mount Wilson are in accordance with the methods described in *Mt. Wilson Contr.*, No. 80,[1] which may be consulted for details not explained here. The field measured was circular, 23′ in diameter and centered on the bright central star of the Area. The negative was mounted on the movable stage of a low-power compound microscope magnifying about 5 diameters. The images on the negative were compared with a scale of star images, placed at the common focus of the eye-piece and objective of the microscope.

TABLE IV

Weights for Long-Exposure Magnitudes

Diameter		Relative Weights	
3-Min. Exp.	60-Min. Exp.	3-Min. Exp.	60-Min. Exp.
<2.5	.....	1	1
>2.5	<8.0	1	½
>2.5	>8.0	1	0

The scales used were prepared in the usual manner by exposing a photographic plate successively to the same star for time intervals increasing in geometrical progression with the factor 4/3. For the bright end of the scale the interval between successive images averages about 0.3 mag., but for images near the limiting magnitude the scale interval is somewhat larger. Besides this progressive change in the interval, both of the scales used show irregular variations. For the primary scale (No. III) these were well determined during the investigation of the Polar Sequence. Comparison of measures of the same photograph made with the two scales then gave the corrections for irregularity in the second scale (No. V). These were combined with the corrections for distance error and tabulated with scale reading and distance as arguments, in such a form as to give directly the corrected scale reading.

Since the correction tables refer to individual scales, they are of no general interest, and hence are not printed. It may be remarked, however, that the correction for the faintest images at the edge of the useful field for the full aperture corresponds to an average of

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[1] *Astrophysical Journal*, 39, 307, 1914.

−0.5 or −0.6 mag. The brightest images, on the other hand, require a positive correction of about the same amount. The limiting magnitude thus shows a large variation with distance from the optical axis, and near this limit the *Catalogue* is far from complete.[1]

During measurement the identification of stars was made with the aid of the charts printed from the positive enlargements of the long-exposure photographs. Five circles concentric with the central star were drawn on the charts, the outermost coinciding with the boundary of the 23′ field, the others dividing the radius of the field into five equal parts, corresponding to five units of distance. The field was further subdivided into 45° sectors. All the stars visible on the chart were then numbered consecutively, in a systematic manner. The numbers thus assigned were retained until the results were finally combined with the Groningen measures of the long-exposure photographs and assembled in catalogue form. With the configuration of stars in each section of the numbered chart as a guide, it was scarcely possible to overlook a star in measuring the plates.

All the images of a star on any given plate were measured successively, a single estimate, to the nearest tenth of a scale interval, being made for each image. After duplicate measurement by a second observer, mean scale readings were formed for the four comparable estimates corresponding to each aperture, that is, for estimates by two observers on each of the two images with full aperture, 32-inch diaphragm, etc. The mean readings and the distance from the optical axis, which was read directly from the chart with the aid of the concentric circles, were then used to interpolate from the correction tables the corrected scale readings, s and s_1, referring, respectively, to the full and reduced apertures.

The difference for any star, $\Delta s = s_1 - s$, corresponds to the reduction constant Δm for the particular aperture used. Were the values of Δs for different stars always the same, the transformation of scale readings into relative magnitudes would have been very simple. In general, however, Δs shows dependence on s, in addition to the accidental fluctuations normally to be expected. The accidental irregularities were minimized by plotting the values of Δs for all the stars on the plate bright enough to produce a secondary image against the corresponding values of the scale reading s. A smooth curve through the plotted points then gave the values of Δs adopted for the transformation into magnitudes.

This transformation was made by the method of Schwarzschild.[2] The results were collected in tables which give values of m and m_1, corresponding to the primary and secondary exposures, respectively, with the corrected scale reading as argument. The zero point for m and m_1 in any Area was always the same, but otherwise, quite arbitrary. From these tables magnitudes corresponding to the scale readings s and s_1 were then interpolated for all the stars measured.

For the brightest stars the primary images cannot be measured; for the faintest stars there is but one value of the magnitude, because the secondary image is lacking. For stars of intermediate brightness, showing measurable images for both full and reduced apertures, the mean of the two corresponding magnitudes was adopted as the result from that particular combination of apertures.

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[1] See *Mt. Wilson Contr.*, No. 301; *Astrophysical Journal*, 62, 320, 1921, Tables Ia, Ib.

[2] *Astronomische Nachrichten*, 172, 65, 1906. For an illustrative example, see *Mt. Wilson Contr.*, No. 80, Table V; *Astrophysical Journal*, 39, 307, 1914.

The series of relative magnitudes thus found represents a "scale determination" for the field in question. In case secondary exposures with additional diaphragms were available, other determinations could also be made from the same plate, the primary images being used in succession with those obtained with the different diaphragms. For the adopted program of exposures (see page IX) the useful combinations of apertures for scale determinations are

Exposure time	15^m	15^m	2^m
No. of Plates	1	1	2
Combinations	60−32	60−*S*	60−32, 60−14, 60−9

The four diaphragm plates for each Area therefore yield eight determinations of the scale and a possible maximum of 16 values of the magnitude of any star. In general, however, the 60−9 combination does not give satisfactory determinations of the scale. The reduction constant of nearly four magnitudes is so large that only a few stars are represented by both primary and secondary images. The resulting curve for Δs is short and the transformation of scale readings into magnitudes uncertain. Magnitudes corresponding to images recorded with the 9-inch diaphragm were therefore usually obtained with the aid of the scales derived from the 60−32 and 60−14 combinations for the same plate. This was done by entering the *m*-column of the magnitude table with the scale reading for the 9-aperture as argument and subtracting from the interpolated magnitude the reduction constant of 3.93 mag.

This reduces the number of scale determinations to six per Area. The maximum number of values of the brightness of any star as found from the four diaphragm plates remains 16 as before; but the number of cases in which 16 values were actually obtained is relatively small. Bright stars were measurable only when the exposure was short or the aperture was reduced, while very faint stars were recorded only with the full-aperture exposures of 15 minutes. For the faintest stars, therefore, the diaphragm plates give but two values of the magnitude, and sometimes only one, because of differences in limiting magnitude for the two 15-minute plates.

The magnitudes resulting from the six scale determinations for each Area were all reduced to the provisional zero point for the 60−32 combination on the plate of 15 minutes exposure. Mean relative magnitudes were then formed for each star. Individual values giving residuals greater than 0.4 mag. were rejected.

For fields in high galactic latitudes, the constants for reduction to the common zero point were based on magnitude differences for all the stars measured. In richer fields they were derived from a selected group of a hundred or more stars, well distributed over the field and covering the whole range of brightness.

As far as the data afforded by the diaphragm plates are concerned, the mean relative magnitudes are the final result. After reduction to the international zero point, selected standards—from 25 to 100 for each Area—were forwarded to Groningen for use in reducing the measures of the long-exposure photographs as described in section 5a. The magnitudes derived from these photographs and the coordinates of the stars (see section 8a), arranged in catalogue form, were then sent to Pasadena for combination with the measures of the diaphragm plates, which were thus strengthened and extended to fainter stars. The procedure followed in combining the two series of magnitudes is explained in section 9. The zero-point reduction is, however, first to be considered, for the zero points of the mean relative magnitudes for each Area are arbitrary. To reduce these results to a homogeneous system is the purpose of the zone- and polar-comparison photographs.

c. Zone and Polar Comparisons.—The comparison photographs were measured in the same manner as the diaphragm plates. The result is a mean scale reading for each star, based on single measures by two observers of each of the two images and corrected, as usual, for distance error and scale irregularity. For any star in a field F_1 the magnitude m_1 corresponds to the scale reading s_1. For any star in a second field F_2, which is to be reduced to the zero point of F_1, the reading and relative magnitude are s_2 and m_2. The zero-point differences given by any comparison photograph connecting F_1 and F_2 were found by plotting values of m_1 against s_1, and reading from the resulting curve the magnitudes m'_2 corresponding to scale reading s_2 for all the stars in the field F_2. The mean of the differences $m'_2 - m_2$, corrected for atmospheric extinction, is the required zero-point difference. Each of the 368 comparison photographs was treated in this manner. The mean observed differences for the pairs of fields thus connected, which are the data upon which the zero-point reduction is based, are given under the headings Δ and δ in Tables VII and VIII, respectively.

6. ZERO-POINT REDUCTION

a. Theoretical Relations.—Much attention has been given to the reduction of the relative magnitudes to a system homogeneous in respect to zero point, a matter that merits detailed explanation and some indication of the internal consistency of the results.

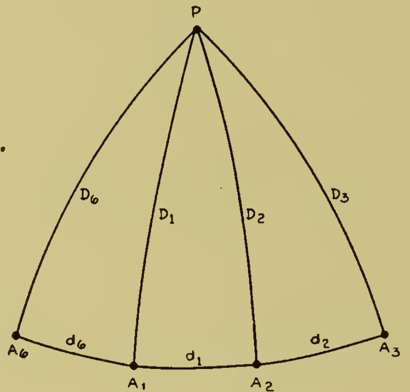

Fig. 1

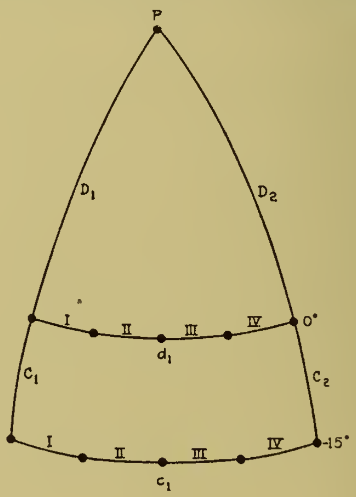

Fig. 2

The zero-point differences derived from the zone- and polar-comparison photographs as described in the preceding section may be grouped in series of closed circuits, each of which is subject to a closing condition, as in a triangulation net. The arrangement of the circuits, which in general are triangular with the Pole at one of the vertices, is illustrated in Figures 1 and 2. For the zone at $\delta = +75°$ each circuit includes three steps (Fig. 1); at +60° an intermediate Area appears between those connected with the Pole, while in all other zones (Fig. 2) there are three intermediate Areas. Since each polar comparison is common to two adjacent circuits, the six circuits of each zone must be discussed together. Further, since the zone at $\delta = -15°$ was connected with that at 0°, and not directly with the Pole, the circuits are as indicated in Figure 2—a triangle and a quadrilateral with one side in common—and the two zones must be reduced as a unit. The number of steps in each circuit and in the zones, which must also close, is therefore as shown in Table V. The grouping of this table indicates the four cases to be considered in deriving the adjustment formulæ. The case for + 75° is the simplest.

TABLE V

Number of Steps

Dec.	In Circuit	In Zone
+75°	3	6
60	4	12
45, 30, 15	6	24
0	6	24
−15	10	24

Declination + 75°.—The adjusted zero-point differences in the triangle A_1PA_2, Figure 1, taken in the order $P-A_1$, $P-A_2$, A_1-A_2, are denoted by D_1, D_2, and d_1, respectively; the corresponding observed differences are Δ_1, Δ_2, and δ_1, and the respective adjustment corrections, V_1, V_2, and v_1.

In general the adjusted differences satisfy the linear closing conditions

$$\psi_n = D_n - D_{n+1} + d_n = 0 \tag{1}$$

while the observed differences give the closing error ϕ:

$$\Delta_n - \Delta_{n+1} + \delta_n = \phi_n \tag{2}$$

Once for all, it may be remarked that n has the values 1, 2, . . . 6. If, however, any subscript, s, exceeds 6, it is to be replaced by $s-6$; the only exception is in equations (9) and (36), where the subscript has its indicated value, since cyclic changes in notation are not involved in these formulæ.

The summation of (1) and (2) gives, respectively, the superfluous condition

$$\Sigma d = 0 \tag{3}$$

and the closing error of the zone

$$\Sigma\delta = \Sigma\phi = \epsilon \tag{4}$$

The problem is to determine adjustment corrections V_n and v_n such that

$$D_n = \Delta_n + V_n, \qquad d_n = \delta_n + v_n \tag{5}$$

satisfy (1). The general solution is[1]

$$V_n = P_D^2\left(\frac{\partial\psi_{n-1}}{\partial D_n}k_{n-1} + \frac{\partial\psi_n}{\partial D_n}k_n\right); \qquad v_n = P_d^2\frac{\partial\psi_n}{\partial d_n}k_n \tag{6}$$

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[1] See, for example, Comstock, *Method of Least Squares* (Boston, 1890), p. 38. For a more complete discussion, Helmert, *Ausgleichungsrechnung* (Berlin, Teubner, 1907), p. 228, may be consulted.

in which ψ is the closing condition (1). Further,

$$P_{\mathrm{D}}^2 = \frac{1}{[p_\Delta]}, \qquad P_{\mathrm{d}}^2 = \frac{1}{[p_\delta]} \tag{7}$$

where p_Δ and p_δ are the weights of Δ and δ.

The quantities k are the correlates corresponding to the six conditions (1) and are defined by

$$\left.\begin{array}{l} [\alpha\alpha]\,k_1 + [\alpha\beta]\,k_2 + \cdots\cdots + [\alpha n]\,k_6 + \phi_1 = 0 \\ [\alpha\beta]\,k_1 + [\beta\beta]\,k_2 + \cdots\cdots + [\beta n]\,k_6 + \phi_2 = 0 \\ \cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots \end{array}\right\} \tag{8}$$

in which

$$\left.\begin{array}{ll} \alpha_{\mathrm{n}} = P_{\mathrm{D}} \dfrac{\partial\psi_1}{\partial D_{\mathrm{n}}}, & \alpha_{6+\mathrm{n}} = P_{\mathrm{d}} \dfrac{\partial\psi_1}{\partial d_{\mathrm{n}}} \\ \beta_{\mathrm{n}} = P_{\mathrm{D}} \dfrac{\partial\psi_2}{\partial D_{\mathrm{n}}}, & \beta_{6+\mathrm{n}} = P_{\mathrm{d}} \dfrac{\partial\psi_2}{\partial d_{\mathrm{n}}} \\ \cdots\cdots\cdots\cdots, & \cdots\cdots\cdots\cdots \end{array}\right\} \tag{9}$$

For the present case the number of observation equations for Δ and δ is the same. Further, the individual comparisons are of equal weight. Hence we may write

$$P_{\mathrm{D}}^2 = P_{\mathrm{d}}^2 = 1$$

TABLE VI

Values of $\dfrac{\partial\psi_{\mathrm{n}}}{\partial x}$

x	ψ_1	ψ_2	ψ_3	ψ_4	ψ_5	ψ_6
D_1	+1	0	0	0	0	−1
D_2	−1	+1	0	0	0	0
D_3	0	−1	+1	0	0	0
D_4	0	0	−1	+1	0	0
D_5	0	0	0	−1	+1	0
D_6	0	0	0	0	−1	+1
d_1	+1	0	0	0	0	0
d_2	0	+1	0	0	0	0
d_3	0	0	+1	0	0	0
d_4	0	0	0	+1	0	0
d_5	0	0	0	0	+1	0
d_6	0	0	0	0	0	+1
	α	β	γ	δ	ϵ	η

The values of α, β, etc., are therefore equal, respectively, to the differential coefficients appearing in (9). These derivatives are listed in Table VI. Combined according to (8), they give the correlate equations (10):

$$\left.\begin{array}{rrrrrrl} +3k_1 & -k_2 & & & & -k_6 & +\phi_1 = 0 \\ -k_1 & +3k_2 & -k_3 & & & & +\phi_2 = 0 \\ & -k_2 & +3k_3 & -k_4 & & & +\phi_3 = 0 \\ & & -k_3 & +3k_4 & -k_5 & & +\phi_4 = 0 \\ & & & -k_4 & +3k_5 & -k_6 & +\phi_5 = 0 \\ -k_1 & & & & -k_5 & +3k_6 & +\phi_6 = 0 \end{array}\right\} \tag{10}$$

which have the solution

$$-40k_n = 18\phi_n + 7\phi_{n+1} + 3\phi_{n+2} + 2\phi_{n+3} + \phi_{n+4} + 7\phi_{n+5} \tag{11}$$

The adjustment corrections (6) reduce to the simple form

$$V_n = k_n - k_{n-1}, \qquad v_n = k_n \tag{12}$$

and are controlled by the check equations

$$\Sigma V = 0, \qquad \Sigma v = -\Sigma\phi = -\epsilon \tag{13}$$

Finally, the adjusted zero-point differences are given by (5), which are themselves subject to the check equations

$$\Sigma D = \Sigma\Delta, \qquad \Sigma d = 0 \tag{14}$$

and, most important of all, equation (1). Formulæ (2), (11), (12), and (5) give the complete solution for the zone at $\delta = +75°$.

Declination $+60°$.—Because of the intermediate Area, the zero-point difference d_n in the preceding formulæ is to be replaced by two differences such that

$$d_n = d_n^{\mathrm{I}} + d_n^{\mathrm{II}} \tag{15}$$

where the weights of d_n^{I} and d_n^{II} are, respectively, equal to those of D_n. The closing conditions are

$$\psi_n = D_n - D_{n+1} + d_n^{\mathrm{I}} + d_n^{\mathrm{II}} = 0 \tag{16}$$

and the closing errors

$$\Delta_n - \Delta_{n+1} + \delta_n^{\mathrm{I}} + \delta_n^{\mathrm{II}} = \phi_n \tag{17}$$

The only effect on the preceding solution is the addition of six values for each of the coefficients listed in (9), namely α_{12+n}, β_{12+n}, etc. The additional derivatives are the same as those in the last six lines of Table VI, which are thus to be repeated. The correlate equations are the same as (10) with the coefficient 3 replaced by 4 throughout. Their solution is

$$-90k_n = 26\phi_n + 7\phi_{n+1} + 2\phi_{n+2} + \phi_{n+3} + 2\phi_{n+4} + 7\phi_{n+5} \tag{18}$$

The adjustment corrections and their checks are

$$\left.\begin{array}{l} V_n = k_n - k_{n-1}, \quad v_n^{\mathrm{I}} = v_n^{\mathrm{II}} = k_n \\ \Sigma V = 0, \quad \Sigma v^{\mathrm{I}} + \Sigma v^{\mathrm{II}} = -\Sigma\phi = -\epsilon \end{array}\right\} \tag{19}$$

Finally, the adjusted differences are given by

$$D_n = \Delta_n + V_n, \qquad d_n^{\mathrm{I}} = \delta_n^{\mathrm{I}} + k_n, \qquad d_n^{\mathrm{II}} = \delta_n^{\mathrm{II}} + k_n \tag{20}$$

with (14) and (16) as final check equations.

Since by (19) the adjustment corrections for the differences δ_n^{I} and δ_n^{II} are equal, an alternative method is available which is considerably simpler, especially for the cases still to be considered. It consists in using the original condition (1), instead of (16). This procedure gives, not v_n^{I} and v_n^{II}, but the total correction v_n for δ_n, which is then to be divided equally between the differences δ_n^{I} and δ_n^{II}.

The differential coefficients are the same as those given in Table VI, but it is now to be noted that P_d^2 is no longer unity but has the value 2. This arises from the fact that, by

(15), the difference δ_n has the probable error $\sqrt{2}\,r$, where r is the probable error of δ_n^{I} and δ_n^{II}. The relative weight of δ_n is therefore ½, whence by (7), $P_d^2 = 2$. The factor P_D^2 remains unchanged. The solution for the correlates is still given by (18), whence,

$$V_n = k_n - k_{n-1}, \qquad v_n = 2\,k_n \tag{21}$$

with check equations as before.

Declinations +45°, +30°, and +15°.—For each of these zones

$$d_n = d_n^{\mathrm{I}} + d_n^{\mathrm{II}} + d_n^{\mathrm{III}} + d_n^{\mathrm{IV}} \tag{22}$$

where the component differences are of unit weight.

For the alternative procedure just described, $P_D^2 = 1$, $P_d^2 = 4$. The coefficient 3 in the correlate equations (10) is increased to 6 throughout, and the solution becomes

$$\left.\begin{aligned} -560\,k_n &= 99\,\phi_n + 17\,\phi_{n+1} + 3\,\phi_{n+2} + \phi_{n+3} + 3\,\phi_{n+4} + 17\,\phi_{n+5} \\ V_n &= k_n - k_{n-1}, \qquad v_n = 4\,k_n \end{aligned}\right\} \tag{23}$$

where v_n is to be distributed equally among the four component differences δ_n^{I}, δ_n^{II}, etc. The adjusted differences are therefore

$$D_n = \Delta_n + V_n, \qquad d_n^{\mathrm{I}} = \delta_n^{\mathrm{I}} + k_n, \text{ etc.} \tag{24}$$

with the usual check equations

$$\left.\begin{aligned} \Sigma V &= 0, \quad \Sigma D = \Sigma \Delta \\ \Sigma v &= -\Sigma \phi = -\epsilon, \quad \Sigma d = 0 \end{aligned}\right\} \tag{25}$$

in addition to the closing condition (1), combined with (22).

Declinations 0° and −15°.—The relations are shown by Figure 2, in which C and c are adjusted differences corresponding to the observed values Γ and γ. The adjusted differences must satisfy the closing conditions

$$\left.\begin{aligned} \psi_n &= D_n - D_{n+1} + d_n &&= 0 \\ \xi_n &= C_n - C_{n+1} - d_n + c_n &&= 0 \end{aligned}\right\} \tag{26}$$

which, by summation, furnish the superfluous conditions

$$\Sigma d = 0, \qquad \Sigma c = 0 \tag{27}$$

The differences d_n and c_n are sums of component values for intermediate steps such that for any n

$$\left.\begin{aligned} d &= d^{\mathrm{I}} + d^{\mathrm{II}} + d^{\mathrm{III}} + d^{\mathrm{IV}} \\ c &= c^{\mathrm{I}} + c^{\mathrm{II}} + c^{\mathrm{III}} + c^{\mathrm{IV}} \end{aligned}\right\} \tag{28}$$

The observed differences, substituted into (26), give the closing errors

$$\left.\begin{aligned} \Delta_n - \Delta_{n+1} + \delta_n &&= \phi_n \\ \Gamma_n - \Gamma_{n+1} - \delta_n + \gamma_n &&= \theta_n \end{aligned}\right\} \tag{29}$$

The closing errors for the zones, from (27), are

$$\Sigma\,\delta = \epsilon\ (0°), \qquad \Sigma\,\gamma = \eta\ (-15°) \tag{30}$$

Further, from (29),

$$\epsilon = \Sigma\,\phi, \qquad \eta - \epsilon = \Sigma\,\theta \tag{31}$$

To provide for the two additional series of adjustment corrections, W and w, defined by

$$C_{\mathrm{n}} = \Gamma_{\mathrm{n}} + W_{\mathrm{n}}, \qquad c_{\mathrm{n}} = \gamma_{\mathrm{n}} + w_{\mathrm{n}} \tag{32}$$

equations (6) to (9) must be extended. The observation equations, as before, are equal in number. Although each of the differences Δ depends on three comparison photographs, as against two for all the other differences, their weights are not increased because of the relatively great distance through which the telescope must be moved in passing from the equator to the Pole. The weights are therefore

$$p_{\mathrm{D}} = p_{\mathrm{C}} = 1, \quad p_{\mathrm{d}} = p_{\mathrm{c}} = 1/4$$

whence, by an extension of (7),

$$P^2_{\mathrm{D}} = P^2_{\mathrm{C}} = 1, \quad P^2_{\mathrm{d}} = P^2_{\mathrm{c}} = 4 \tag{33}$$

The expressions for the corrections are

$$\left.\begin{aligned} V_{\mathrm{n}} &= \frac{\partial \psi_{\mathrm{n}-1}}{\partial D_{\mathrm{n}}} k_{\mathrm{n}-1} + \frac{\partial \psi_{\mathrm{n}}}{\partial D_{\mathrm{n}}} k_{\mathrm{n}} & \qquad v_{\mathrm{n}} &= 4\left(\frac{\partial \psi_{\mathrm{n}}}{\partial d_{\mathrm{n}}} k_{\mathrm{n}} + \frac{\partial \xi_{\mathrm{n}}}{\partial d_{\mathrm{n}}} j_{\mathrm{n}}\right) \\ W_{\mathrm{n}} &= \frac{\partial \xi_{\mathrm{n}-1}}{\partial C_{\mathrm{n}}} j_{\mathrm{n}-1} + \frac{\partial \xi_{\mathrm{n}}}{\partial C_{\mathrm{n}}} j_{\mathrm{n}} & \qquad c_{\mathrm{n}} &= 4 \frac{\partial \xi_{\mathrm{n}}}{\partial c_{\mathrm{n}}} j_{\mathrm{n}} \end{aligned}\right\} \tag{34}$$

in which j_{n} represents the six correlates corresponding to the second series of conditions in (26).

The correlate equations have the form

$$\left.\begin{array}{l} [\alpha\,\alpha]\,k_1 + \cdots\cdots + [\alpha\,\eta]\,k_6 + [\alpha\,\alpha']\,j_1 + \cdots\cdots + [\alpha\,\eta']\,j_6 + \phi_1 = 0 \\ \cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots \\ [\eta\,\alpha]\,k_1 + \cdots\cdots + [\eta\,\eta]\,k_6 + [\eta\,\alpha']\,j_1 + \cdots\cdots + [\eta\,\eta']\,j_6 + \phi_6 = 0 \\ [\alpha'\alpha]\,k_1 + \cdots\cdots + [\alpha'\eta]\,k_6 + [\alpha'\alpha']\,j_1 + \cdots\cdots + [\alpha'\eta']\,j_6 + \theta_1 = 0 \\ \cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots \\ [\eta'\alpha]\,k_1 + \cdots\cdots + [\eta'\eta]\,k_6 + [\eta'\alpha']\,j_1 + \cdots\cdots + [\eta'\eta']\,j_6 + \theta_6 = 0 \end{array}\right\} \tag{35}$$

in which the coefficients are defined by

$$\left.\begin{array}{llll} \alpha_{\mathrm{n}} = \dfrac{\partial \psi_1}{\partial D_{\mathrm{n}}}, & \alpha_{6+\mathrm{n}} = 2\dfrac{\partial \psi_1}{\partial d_{\mathrm{n}}}, & \alpha_{12+\mathrm{n}} = \dfrac{\partial \psi_1}{\partial C_{\mathrm{n}}}, & \alpha_{18+\mathrm{n}} = 2\dfrac{\partial \psi_1}{\partial c_{\mathrm{n}}} \\ \cdots\cdots & \cdots\cdots & \cdots\cdots & \cdots\cdots \\ \alpha'_{\mathrm{n}} = \dfrac{\partial \xi_1}{\partial D_{\mathrm{n}}}, & \alpha'_{6+\mathrm{n}} = 2\dfrac{\partial \xi_1}{\partial d_{\mathrm{n}}}, & \alpha'_{12+\mathrm{n}} = \dfrac{\partial \xi_1}{\partial C_{\mathrm{n}}}, & \alpha'_{18+\mathrm{n}} = 2\dfrac{\partial \xi_1}{\partial c_{\mathrm{n}}} \\ \cdots\cdots & \cdots\cdots & \cdots\cdots & \cdots\cdots \end{array}\right\} \tag{36}$$

These expressions are easily evaluated and arranged in a 24-line table of 12 columns, corresponding to Table VI, which was used for the other cases. The formation of the products $\alpha\alpha$, $\alpha\beta$, etc., and their summation then give the coefficients of the 12 correlate equations (35), and the equations themselves, in generalized form, become

$$\left.\begin{array}{l} 6\,k_{\mathrm{n}} - k_{\mathrm{n}+1} - k_{\mathrm{n}+5} - 4\,j_{\mathrm{n}} + \phi_{\mathrm{n}} = 0 \\ -\,4\,k_{\mathrm{n}} + 10\,j_{\mathrm{n}} - j_{\mathrm{n}+1} - j_{\mathrm{n}+5} + \theta_{\mathrm{n}} = 0 \end{array}\right\} \tag{37}$$

The solution of these equations is

$$\left.\begin{aligned} -70760\,k_n &= +19239\,\phi_n + 5661\,\phi_{n+1} + 1879\,\phi_{n+2} + 1061\,\phi_{n+3} + 1879\,\phi_{n+4} + 5661\,\phi_{n+5} \\ &\quad + 8338\,\theta_n + 3212\,\theta_{n+1} + 1138\,\theta_{n+2} + 652\,\theta_{n+3} + 1138\,\theta_{n+4} + 3212\,\theta_{n+5} \\ -70760\,j_n &= +8338\,\phi_n + 3212\,\phi_{n+1} + 1138\,\phi_{n+2} + 652\,\phi_{n+3} + 1138\,\phi_{n+4} + 3212\,\phi_{n+5} \\ &\quad + 10901\,\theta_n + 2449\,\theta_{n+1} + 741\,\theta_{n+2} + 409\,\theta_{n+3} + 741\,\theta_{n+4} + 2449\,\theta_{n+5} \end{aligned}\right\} \quad (38)$$

To obtain the adjustment corrections, the correlates k and j are to be substituted into (34), which simplify to

$$\begin{aligned} V_n &= k_n - k_{n-1}, & v_n &= 4\,(k_n - j_n) \\ W_n &= j_n - j_{n-1}, & w_n &= 4\,j_n \end{aligned} \quad (39)$$

The resulting corrections v_n and w_n are to be apportioned equally among the component differences in accordance with (28).

The rather complicated expressions for the correlates are checked by the formulæ

$$-4\,\Sigma k = 2\,\Sigma\phi + \Sigma\theta, \qquad -4\,\Sigma j = \Sigma\phi + \Sigma\theta \quad (40)$$

which are easily derived from the correlate equations (37). Further, the combination of (5), (26), (29), and (32) gives

$$\left.\begin{aligned} \phi_n + V_n - V_{n+1} + v_n &= 0 \\ \theta_n + W_n - W_{n+1} - v_n + w_n &= 0 \end{aligned}\right\} \quad (41)$$

The substitution of (39) into (41) then gives

$$\begin{aligned} k_{n-1} - 6\,k_n + k_{n+1} + 4\,j_n &= \phi_n \\ j_{n-1} - 10\,j_n + j_{n+1} + 4\,k_n &= \theta_n \end{aligned}$$

Since the subscript $n-1$ is equivalent to $6+n-1=n+5$ these formulæ are nothing but the generalized correlate equations (37). Equations (37) and (40) are identically satisfied by (38), which checks not only the coefficients of the correlates but also formulæ (39) for the corrections themselves.

The complete solution is therefore given by (29), (38), (39), and (32). The check formulæ are

$$\left.\begin{aligned} &\Sigma V = \Sigma W = 0, \quad \Sigma v = -\epsilon, \quad \Sigma w = -\eta \\ &\Sigma D = \Sigma\Delta, \quad \Sigma C = \Sigma\Gamma, \quad \Sigma d = \Sigma c = 0 \end{aligned}\right\} \quad (42)$$

and, in addition, the closing conditions (26).

b. Numerical Results.—An indication of the internal consistency of the results is given by the summary of reduction for each zone shown in Tables VII and VIII, the first of which relates to the polar comparisons and the inter-connection of the −15° and 0° zones, the second to the comparison of adjacent Areas in the same zone. In each case the second column shows the fields compared, in the order used in forming the observed zero-point differences, Δ and δ, which appear in the fourth column. Thus for the Pole and Area 2 (Table VII), $\Delta = +1.74$ is the difference which, applied to the relative magnitudes of Area 2, reduces them to the international zero point as defined by the stars at the Pole. Similarly, for Areas 2 and 3 (Table VIII) the difference $\delta = -1.70$ reduces Area 3 to Area 2. In the last division of Table VII, which relates to the inter-connection of the −15° and 0° zones,

TABLE VII

Polar and Inter-Zone Comparisons

Dec.	Fields	Plate Nos.	Δ	Residuals	*V*	*D*
+90°	*P* – 1	2514, 3499	+0.03	+ 4, − 4	. . .	. . . . . .
+75	*P* – 2	2713, 3226	+1.74	− 1, 0	−0.05	+1.69
	– 3	3523, 3912	+0.04	− 1, + 1	− 3	+0.01
	– 4	3496, 3655	+1.50	+ 5, − 5	+ 2	+1.52
	– 5	2370, 2944	+0.70	− 6, + 7	+ 2	+0.72
	– 6	2453, 4392	+1.52	− 7, + 7	+ 5	+1.57
	– 7	2963, 3506	+1.29	− 5, + 5	− 1	+1.28
+60	*P* – 8	2714, 3227	+0.81	+18, −18	− 4	+0.77
	– 10	2952, 3524	+0.32	− 1, + 2	− 2	+0.30
	– 12	2369, 4369	+0.43	− 6, + 6	+ 4	+0.47
	– 14	2355, 2517	+1.21	−16, +16	+ 7	+1.28
	– 16	2513, 2523	+1.24	+ 4, − 5	0	+1.24
	– 18	2757, 2826	+1.62	+ 1, 0	− 5	+1.57
+45	*P* – 20	2715, 3208	+0.38	− 5, + 5	− 7	+0.31
	– 24	3668, 3923	+0.82	+ 4, − 5	0	+0.82
	– 28	2958, 3672	+1.44	−17, +17	+ 6	+1.50
	– 32	2356, 2945	+0.82	− 7, + 7	0	+0.82
	– 36	2512, 2522	+0.54	− 2, + 2	+ 5	+0.59
	– 40	2825, 2866	+1.35	− 3, + 3	− 3	+1.32
+30	*P* – 45	3228, 3242	+0.82	+ 7, − 7	0	+0.82
	– 49	4363, 4408	+1.22	0, 0	− 3	+1.19
	– 53	2959, 3772	+0.56	− 4, + 3	+ 8	+0.64
	– 57	2494, 2946	+0.50	+ 6, − 7	− 2	+0.48
	– 61	2511, 2520	+0.66	+ 2, − 2	− 4	+0.62
	– 65	2824, 2865	+0.56	− 2, + 2	+ 1	+0.57
+15	*P* – 69	3229, 3979, 4801	+0.76	− 2, − 2, + 4	− 1	+0.75
	– 73	4361, 4423, 4805	+0.22	− 4, + 1, + 3	− 2	+0.20
	– 77	2971, 3771	+0.44	+ 1, 0	+ 3	+0.47
	– 81	2493, 3782	+1.15	+ 4, − 4	0	+1.15
	– 85	2510, 2519	+1.07	− 8, + 8	+ 2	+1.09
	– 89	2821, 2864	+0.60	+ 1, − 1	− 1	+0.59
0	*P* – 92	3230, 3957, 3976	+1.07	−18, +12, + 7	− 3	+1.04
	– 96	4751, 4754, 4792	+0.39	0, − 1, + 2	+ 3	+0.42
	–100	4411, 4425, 4427	+0.76	+ 1, − 4, + 3	+ 2	+0.78
	–104	2458, 3780, 3789	+0.17	+ 1, + 3, − 3	− 2	+0.15
	–108	2572, 2646, 4512*	+1.25	+10, + 5, − 4, − 10	− 2	+1.23
	–112	2820, 2859, 3845	+0.43	−15, +13, + 2	+0.02	+0.45
			Γ		*W*	*C*
−15	92–116	3955, 3972	−0.15	− 6, + 6	−0.03	−0.18
	96–120	4729, 4731	+0.28	− 7, + 8	− 1	+0.27
	100–124	4797, 5096	+0.27	+ 2, − 2	+ 5	+0.32
	104–128	3799, 4314	+0.52	+ 8, − 8	− 3	+0.49
	108–132	4398, 4437	−0.80	− 3, + 4	− 1	−0.81
	112–136	3842, 4492	−0.23	− 5, + 5	+0.04	−0.19

*Additional plate, 4537.

the order, for example, 92–116, is such that the tabulated differences reduce the −15° zone to that at the equator.

For most cases the observed differences are the means for two plates as found in section 5c, corrected for atmospheric extinction. The deviations of the individual differences from the mean, expressed in hundredths of a magnitude, are given in the fifth column of Tables VII and VIII. The correction for extinction is always differential, and never large. The derivation of the tables used is described in section 7.

Table VIII

Zone Comparisons

Dec.	Fields	Plate Nos.	δ	Residuals	*v*	*d*
+75°	2– 3	2712, 3535	−1.70	+ 6, − 7	+0.02	−1.68
	3– 4	2947, 3522	+1.52	+ 3, − 3	− 1	+1.51
	4– 5	2939, 3028*	−0.80	+ 2, − 3, + 2	0	−0.80
	5– 6	2940, 2961	+0.82	0, − 1	+ 3	+0.85
	6– 7	2962, 3513	−0.36	+ 9, − 9	+ 7	−0.29
	7– 2	2803, 2814	+0.34	+ 3, − 3	+ 7	+0.41
+60	8– 9	2711, 2742	−0.40	− 3, + 4	− 4	−0.44
	9– 10	2745, 2929	+0.02	− 3, + 4	− 5	−0.03
	10– 11	2854, 2930	+0.92	− 4, + 5	− 6	+0.86
	11– 12	2813, 2948	−0.62	+ 1, − 1	− 7	−0.69
	12– 13	2937, 2949	+0.35	− 1, + 1	− 2	+0.33
	13– 14	2938, 2960	+0.50	− 1, + 2	− 2	+0.48
	14– 15	2472, 2486	+0.31	+ 2, − 2	+ 4	+0.35
	15– 16	2481, 2943	−0.44	+ 8, − 8	+ 5	−0.39
	16– 17	2482, 2489	+0.26	+ 5, − 5	+ 4	+0.30
	17– 18	2490, 2704	−0.02	+ 4, − 3	+ 5	+0.03
	18– 19	2801, 2815	−1.29	+ 4, − 4	0	−1.29
	19– 8	2710, 2816	+0.49	0, 0	0	+0.49
+45	20– 21	2708, 3488	+1.23	− 2, + 2	− 4	+1.19
	21– 22	2709, 3489	−0.77	− 1, + 1	− 4	−0.81
	22– 23	2744, 2761	+0.66	− 1, 0	− 4	+0.62
	23– 24	2743, 2764	−0.44	− 4, + 3	− 5	−0.49
	24– 25	2765, 2950	−0.46	+ 2, − 1	− 4	−0.50
	25– 26	2836, 2851*	+0.84	−12, + 1, +11	− 4	+0.80
	26– 27	2852, 3025	+0.32	− 5, + 5	− 4	+0.28
	27– 28	2953, 3026	+0.14	− 4, + 4	− 4	+0.10
	28– 29	2887, 2954	−0.94	− 2, + 2	+ 1	−0.93
	29– 30	2888, 2955	+2.26	− 3, + 3	+ 2	+2.28
	30– 31	2956, 3029	−2.09	0, 0	+ 1	−2.08
	31– 32	2941, 2957	+0.03	+ 3, − 3	+ 2	+0.05
	32– 33	2477, 2942	−0.45	+ 5, − 5	+ 1	−0.44
	33– 34	2469, 2478	+0.38	− 4, + 3	+ 1	+0.39
	34– 35	2470, 2479	+1.16	− 9, + 9	+ 1	+1.17
	35– 36	2474, 2480	−1.36	− 9, + 9	+ 1	−1.35
	36– 37	2475, 2483	−0.14	− 6, + 6	+ 6	−0.08
	37– 38	2484, 2488	+0.90	− 9, +10	+ 6	+0.96
	38– 39	2746, 2747	−0.44	− 6, + 6	+ 6	−0.38
	39– 40	2748, 2799	+0.18	− 4, + 4	+ 5	+0.23
	40– 41	2755, 2800	−0.60	+ 4, − 3	+ 3	−0.57
	41– 42	2756, 2818	0.00	−10, +10	+ 3	+0.03
	42– 43	2707, 2819	+1.04	− 9, + 9	+ 3	+1.07
	43– 20	2804, 3486	−1.56	− 6, + 6	+ 2	−1.54
+30	45– 46	2759, 3606*	+0.33	− 5, + 6, 0	0	+0.33
	46– 47	2762, 3607	−0.82	+10, −10	+ 1	−0.81
	47– 48	2763, 3594	+0.91	− 2, + 2	0	+0.91
	48– 49	3595, 3611	−0.07	+ 6, − 6	+ 1	−0.06
	49– 50	3596, 3612	−0.66	+ 5, − 4	− 2	−0.68
	50– 51	3597, 3617	+0.56	+ 4, − 5	− 2	+0.54
	51– 52	3014, 3587	−0.58	0, + 1	− 2	−0.60
	52– 53	2920, 2978	+0.21	− 2, + 2	− 3	+0.18
	53– 54	2910, 2921	+0.17	+ 3, − 3	+ 5	+0.22
	54– 55	2901, 2911	+0.48	+ 2, − 3	+ 6	+0.54
	55– 56	2912, 2922	+0.45	− 2, + 2	+ 5	+0.50
	56– 57	2913, 2983	−1.47	− 4, + 4	+0.06	−1.41

TABLE VIII—Continued

Dec.	Fields	Plate Nos.	δ	Residuals	*v*	*d*
+30°	57– 58	2928, 2984	+1.53	+ 3, − 3	+0.03	+1.56
	58– 59	2525, 2535	−2.08	− 4, + 5	+ 3	−2.05
	59– 60	2526, 2536	+1.05	− 5, + 5	+ 3	+1.08
	60– 61	2527, 2673	−0.49	0, 0	+ 4	−0.45
	61– 62	2528, 2674	+0.69	−10, +10	0	+0.69
	62– 63	2529, 2675	−0.84	+ 1, − 2	0	−0.84
	63– 64	2676, 2778a	+0.22	− 5, + 5	0	+0.22
	64– 65	2666, 2750	−0.12	+13, −14	− 1	−0.13
	65– 66	2667, 2781	+0.49	+ 2, − 2	0	+0.49
	66– 67	2782, 2787	+0.40	+ 2, − 1	+ 1	+0.41
	67– 44	2788, 3468	−1.21	− 8, + 8	0	−1.21
	44– 45	2758, 3469	+0.56	− 2, + 1	+ 1	+0.57
+15	69– 70	3472, 3958	−0.44	+ 2, − 1	− 1	−0.45
	70– 71	4727, 4781	+0.80	− 5, + 5	− 1	+0.79
	71– 72	4728, 4782	−0.41	− 2, + 2	− 1	−0.42
	72– 73	4341, 4708	−0.44	− 1, + 2	− 2	−0.46
	73– 74	2850, 3635	−0.40	− 5, + 6	− 4	−0.44
	74– 75	3618, 3636	+1.42	+ 4, − 5	− 4	+1.38
	75– 76	3003, 3598	−0.56	0, + 1	− 4	−0.60
	76– 77	2991, 3004	−0.04	+ 2, − 3	− 3	−0.07
	77– 78	2384, 2398	+0.72	−10, +11	− 1	+0.71
	78– 79	2399, 2992	+0.06	+ 3, − 3	− 1	+0.05
	79– 80	2993, 3588	−0.90	− 3, + 4	− 1	−0.91
	80– 81	2973, 2994	+0.84	+ 1, − 1	− 1	+0.83
	81– 82	2927, 2974	+0.30	+ 7, − 7	− 1	+0.29
	82– 83	2389, 2548	−0.66	+ 1, − 1	− 1	−0.67
	83– 84	2390, 2549	−0.46	− 6, + 5	− 1	−0.47
	84– 85	2550, 2551	+0.78	− 3, + 4	0	+0.78
	85– 86	2552, 2659	+0.21	− 3, + 3	+ 1	+0.22
	86– 87	2660, 2677	+0.29	− 9, + 9	+ 1	+0.30
	87– 88	2664, 2678	−1.46	− 5, + 4	+ 1	−1.45
	88– 89	2681, 2779	+0.42	− 4, + 5	+ 1	+0.43
	89– 90	2682, 2768	−0.58	− 7, + 8	0	−0.58
	90– 91	2769, 2789	+0.62	− 2, + 3	0	+0.62
	91– 68	2771, 2790	+0.18	0, − 1	0	+0.18
	68– 69	2772, 3471	−0.06	− 1, + 1	0	−0.06
0	92– 93	3410, 3473	−0.52	+10, −10	− 1	−0.53
	93– 94	3460, 3474	+1.29	+ 3, − 4	− 1	+1.28
	94– 95	3461, 3475	−1.23	+ 1, − 1	− 1	−1.24
	95– 96	3476, 4709	−0.13	+ 1, − 1	0	−0.13
	96– 97	4077, 4710	−0.60	− 8, + 7	+ 3	−0.57
	97– 98	3643, 4078	−0.29	− 2, + 2	+ 3	−0.26
	98– 99	3623, 3644	+1.61	− 3, + 3	+ 3	+1.64
	99–100	3002, 3624	−0.48	+ 2, − 3	+ 4	−0.44
	100–101	2395, 2967	+0.92	−10, +10	0	+0.92
	101–102	2385, 2396	−1.46	−10, +11	0	−1.46
	102–103	2397, 2980	+0.26	−14, +15	0	+0.26
	103–104	2924, 2979	−0.36	− 5, + 5	+ 1	−0.35
	104–105	2387, 2925	+0.43	− 5, + 5	+ 2	+0.45
	105–106	1162, 2926	+0.46	− 9, + 9	+ 1	+0.47
	106–107	2388, 2400	−0.65	− 4, + 4	+ 2	−0.63
	107–108	2539, 2547	+0.79	+ 5, − 5	+ 1	+0.80
	108–109	2392, 2658	−0.70	+ 5, − 6	+ 1	−0.69
	109–110	2541, 2654	+0.90	− 4, + 3	+ 1	+0.91
	110–111	2661, 2766	+0.38	− 8, + 7	+ 1	+0.39
	111–112	2662, 2679	−1.41	− 7, + 7	+0.01	−1.40

TABLE VIII—Continued

Dec.	Fields	Plate Nos.	δ	Residuals	v	d
0°	112–113.	2591, 2680	+0.14	− 4, + 3	−0.01	+0.13
	113–114	2594, 2683	+0.47	0, 0	− 1	+0.46
	114–115	2684, 2791	−0.10	+ 9, −10	− 1	−0.11
	115– 92	3409, 3510	+0.12	+14, −14	−0.01	+0.11
			γ		w	c
−15	116–117	3953, 3974	−0.16	+ 8, − 8	0.00	−0.16
	117–118	3954, 3998	+0.04	+ 4, − 3	− 1	+0.03
	118–119	3999, 4692	+0.48	+ 4, − 5	0	+0.48
	119–120	4693, 4733	−0.52	+ 2, − 1	− 1	−0.53
	120–121	4734, 4745	−0.46	− 4, + 5	− 2	−0.48
	121–122	4746, 4757	+0.85	0, 0	− 2	+0.83
	122–123	4758, 4772	−1.30	+ 3, − 4	− 1	−1.31
	123–124	4774, 4796	+1.40	+ 1, 0	− 2	+1.38
	124–125	4787, 4799	+0.08	+ 4, − 5	+ 3	+0.11
	125–126	3720, 4298	−0.45	+ 4, − 4	+ 3	−0.42
	126–127	3721, 3737	−0.42	+ 8, − 7	+ 3	−0.39
	127–128	3722, 4313	+0.20	+ 3, − 2	+ 4	+0.24
	128–129	3723, 3740	−0.56	+13, −12	0	−0.56
	129–130	3741, 4433*	+0.05	−10, − 3, +13	0	+0.05
	130–131	4435, 4445	+0.15	−11, +11	0	+0.15
	131–132	3632, 4405	+0.14	− 1, + 1	0	+0.14
	132–133	3689, 4440	+1.26	+ 2, − 3	− 1	+1.25
	133–134	4449, 4459	−1.92	− 1, 0	− 1	−1.93
	134–135	3839, 4460	+0.80	− 3, + 2	− 1	+0.79
	135–136	3840, 4470	−0.26	− 4, + 5	− 1	−0.27
	136–137	4471, 4550	+0.13	+ 1, − 1	+ 3	+0.16
	137–138	4551, 4582	+1.41	− 6, + 6	+ 3	+1.44
	138–139	3970, 3993	−1.20	+ 8, − 9	+ 3	−1.17
	139–116	3971, 3973	+0.14	+ 7, − 6	+0.03	+0.17

*Additional Plates: Areas 4– 5, 3770 Areas 45– 46, 4356
25–26, 2885 129–130, 4434

The remaining columns of Tables VII and VIII relate to the adjustment based upon the closing errors of the various circuits as defined by equations (2) or (26). Thus for the +75° zone

$$\phi_1 = \Delta_1 - \Delta_2 + \delta_1 = +1.74 - 0.04 - 1.70 = \quad 0.00$$

$$\phi_2 = \Delta_2 - \Delta_3 + \delta_2 = +0.04 - 1.50 + 1.52 = +0.06, \text{ etc.}$$

These and the remaining values of ϕ for this zone appear in the second column of Table IX. The closing error for the zone is $\Sigma\phi = -18$, which is checked by the fact that it equals $\Sigma\delta$

TABLE IX
Closing Errors

Circuit	+75°	+60°	+45°	+30°	+15°	0°	−15°
1	0	+11	+24	− 5	+ 5	+ 9	0
2	+ 6	+19	+22	+19	+20	−13	+26
3	0	+ 7	−12	−31	+ 1	− 5	−20
4	0	−16	+ 1	−15	+ 4	− 5	+ 7
5	−13	−14	−31	+ 5	− 7	− 1	+14
6	−11	+ 1	−15	− 2	0	− 1	−23
Zone	−18	+ 8	−11	−29	+23	−16	−12

(Table VIII). Equations (11) and (12) then give the corrections V and v appearing in the sixth column of Tables VII and VIII. These satisfy the conditions $\Sigma V = 0$ and $-\Sigma v = \epsilon = -18$, the closing error of the zone. The adjusted values, D and d, are checked by the closing condition (1), thus

$$+1.69 - 0.01 - 1.68 = 0; \qquad +0.01 - 1.52 + 1.51 = 0, \text{ etc.}$$

In forming the circuits for the other zones, it is to be noted that groups of either two or four differences from Table VIII are to be combined with two adjacent differences from Table VII; and that the initial and final field numbers of the proper group from Table VIII are the same as the Area numbers involved in the polar-comparison differences. Hence for $+45°$, $P-20$ and $P-24$ are to be combined with the group $20-21, \ldots, 23-24$, in Table VIII. To emphasize the grouping, the zone differences in Table VIII do not always begin with the initial Area of the zone. Thus for $+30°$, the sequence of differences begins with $45-46$, the difference for $44-45$ being given at the end of the tabulation for the zone.

The adjustment of the 0° and $-15°$ zones requires little comment. The additional condition providing for the closure of the quadrilateral circuit is the second of equations (26), the closing error itself, θ, being given by the second of (29). Thus for the first circuit

$$\begin{array}{llll} \Gamma_1 = -0.15, & \delta_1 = -0.59 & & (\Sigma\delta \text{ for Areas 92 to 96}) \\ \Gamma_2 = +0.28, & \gamma_1 = -0.16 & & (\Sigma\gamma \text{ for Areas 116 to 120}) \end{array}$$

whence $\theta_1 = 0$, which appears in the last column of Table IX. The values of ϕ, found as already explained, are in the preceding column. The zone closing error for 0° is $\Sigma\phi = -16$; but for $-15°$, by (31), it is $\Sigma\phi + \Sigma\theta = -12$, which, by (30), must equal $\Sigma\gamma$, as in fact is the case.

The corrections V, W, v, and w are calculated by (38) and (39), and satisfy the check equations (42). Finally, the adjusted values D, C, d, and c satisfy (26). For example

$$\begin{array}{lr@{\qquad}lr} D_1\,(P-92) & +1.04 & C_1\,(92-116) & -0.18 \\ -D_2\,(P-96) & -0.42 & -C_2\,(96-120) & -0.27 \\ d_1\,(92 \text{ to } 96) & -0.62 & -d_1\,(92 \text{ to } 96) & +0.62 \\ & & c_1\,(116 \text{ to } 120) & -0.18 \\ \hline \text{Sum} & 0.00 & & -0.01 \end{array}$$

The values of D in Table VII are final zero-point corrections for relative magnitudes. As they stand, results are available only for those Areas which were compared directly with the Pole. Corrections for the other Areas were found by combining adjusted differences in Tables VII and VIII. Thus

$$\begin{aligned} P-93 &= (P-92) + (92-93) \\ P-94 &= (P-93) + (93-94), \text{ etc.} \end{aligned} \tag{43}$$

$$\begin{aligned} P-116 &= (P-92) + (92-116) \\ P-117 &= (P-116) + (116-117), \text{ etc.} \end{aligned} \tag{44}$$

c. Precision of Zero Points.— The principal points bearing on the homogeneity of the results are the residuals for the individual comparison photographs given in the fifth column of Tables VII and VIII, the closing errors in Table IX, and the adjustment corrections

V, v, W, and w in the sixth column of Tables VII and VIII. The residuals but rarely exceed a tenth of a magnitude. The corresponding average probable errors in Δ, Γ, δ, and γ for the different zones are given in Table X. The least satisfactory are the polar comparisons for +60° and +45°. The fluctuations from zone to zone, however, are just what would be expected from the general averages in Table X and the number of values included in each. The average probable error in the mean zero point of a field directly connected with the Pole by 2 plates (3 for 0°) is ±0.040 mag. The corresponding uncertainty for a zone comparison is ±0.036 mag.

TABLE X

Probable Errors of Mean Observed Zero-Point Differences

Dec.	Polar Comp.		Zone Comp.	
	Av. P.E.	No.	Av. P.E.	No.
	mag.		mag.	
+90°	±0.034	2	....	..
75	.032	12	±0.033	13
60	.069	12	.026	24
45	.055	12	.038	49
30	.028	12	.036	49
+15	.027	14	.031	48
0	.038	18	.049	48
−15	±0.038*	12	±0.038	49
Means	±0.040	94	±0.036	280

*Inter-zone comparison, 0° and −15°.

TABLE XI

Probable Errors of Closure

Zones	From Closing Errors	From Table X	No. of Steps	No. of Closing Errors
	Triangular Circuits			
+75°	±0.054	±0.056	3	6
60	0.094	0.105	4	6
45, 30, 15, 0	0.097	0.094	6	24
	Quadrilateral Circuits			
0°, −15°	0.129	0.135	10	6
	Zone Circuits			
+45° to −15°	±0.147	±0.188	24	5

In general, these results are consistent with the closing errors shown in Table IX. Regarded as residuals, the closing errors may be used to calculate the probable error of closure. This quantity, however, may be computed directly from the probable errors of the observed differences given in Table X. Table XI summarizes the results. The most reliable comparison is that for the triangular circuits connected with zones +45° to 0°. For the other zones the number of closing errors available is too small to insure a very reliable test; and yet the only discordance is that affecting the zone circuits, for which the result from the closing errors is *less* than would be inferred from the internal agreement of the individual comparisons. The results thus indicate that the precision of the zero-point differences, as indicated in Table X, has not been overestimated.

Of the 170 adjustment corrections, one attains a value of 0.08 mag., and 5 are equal to 0.07 mag. The average, however, is only ±0.024 mag., which, in itself, is evidence that a reasonably satisfactory precision in the zero points has been attained. The matter may be investigated further, however, by calculating the probable errors of the adjusted zero-point differences.[1]

For this purpose we require the probable error r of various linear functions of the adjustment corrections, which, in their most general form, may be expressed by

$$F = \sum_{1}^{6} l_n V_n + \sum_{7}^{12} l_n v_n \tag{45}$$

The reciprocal weight of such a function is

$$\frac{1}{P} = [ll] - \frac{[\alpha l]^2}{[\alpha\alpha]} - \frac{[\beta l \cdot 1]^2}{[\beta\beta \cdot 1]} - \cdots\cdots\cdots - \frac{[\eta l \cdot 5]^2}{[\eta\eta \cdot 5]} \tag{46}$$

in which the symbols are the usual Gaussian notation for well-known functions of coefficients. The expression for the probable error of F is then

$$r = 0.6745 \sqrt{\frac{[\phi k]}{PN}} \tag{47}$$

where ϕ represents the closing errors, k the correlates, and N the number of conditions to be satisfied.

Because of the considerable labor involved, the calculation has been made only for the zones at +75° and at +45°. For the first, all of the fields are connected directly with the Pole, and it is necessary to find the probable error for only a single V, any one of which may be chosen, since the uncertainty affecting them is the same for all. From a numerical standpoint, however, it is simplest to use V_6, and the general function therefore reduces to the single term $F = V_6$.

For the +45° zone, three intermediate Areas occur between each pair connected with the Pole. A reference to Figure 2 shows that the quantities required to reduce the zero points of such a group of Areas to the Pole are

$$D_n, \qquad D_n + d_n^{I}, \qquad D_n + d_n^{I} + d_n^{II}, \cdots\cdots$$

The reduction for the next Area, involving d_n^{III}, is by (1) and (22) equivalent to $D_{n+1} - d_n^{IV}$. As far as the calculation of errors is concerned, this case is the same as the second of the above sequence. The functions of the adjacent correction to be considered are therefore

$$F = V_n; \qquad F^{I} = V_n + v_n^{I}; \qquad F^{II} = V_n + v_n^{I} + v_n^{II} \tag{48}$$

Here again, the choice of n is arbitrary, although the calculation itself is simplest for n = 6.

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[1] Helmert, *Ausgleichungsrechnung* (Berlin, 1907), pages 239, 245, 246.

The results found by formulæ (46) and (47) are

$+75°)\quad r = \pm 0.024$ mag.
$+45°)\quad r = \pm 0.048,\quad r^{\mathrm{I}} = \pm 0.063,\quad r^{\mathrm{II}} = \pm 0.068$ mag.

where r refers to a field directly connected with the Pole by the step D; r^{I}, to one connected by the two steps $D + d^{\mathrm{I}}$; and r^{II}, by the three steps $D + d^{\mathrm{I}} + d^{\mathrm{II}}$.

As an indication of the increase in precision resulting from the adjustment process, these results may be compared with the corresponding probable errors for unadjusted results. Table X gives, either directly or by obvious combinations of probable errors,

$+75°)\quad \pm 0.032;\qquad +45°)\quad \pm 0.055,\quad \pm 0.067,\quad \pm 0.077$ mag.

which are to be compared with the above sequence of values.

As already remarked, the +45° zone is one of the least satisfactory. On the average, for the errors affecting the unadjusted results of one, two, and three steps, we may expect

$\pm 0.040,\quad \pm 0.054,\quad \pm 0.065$ mags.

and for adjusted results, errors about 0.01 mag. smaller.

7. CORRECTION FOR ATMOSPHERIC EXTINCTION

The lack of suitable extinction tables made it necessary in the beginning to follow a somewhat unsatisfactory procedure and base the corrections for photographic extinction on the visual tables of Müller.[1] The old rule of doubling the visual correction was followed, after a rough interpolation for the altitude of Mount Wilson had been made from Müller's results for Potsdam and the Säntis. A summary of these results appears under the heading "Interpolated" in Table XII.

TABLE XII

Corrections for Atmospheric Extinction

Zenith Distance	Interpolated		Observed		Differences	
	Pg	Vis	Pg	Pv	$Pg_O - Pg_I$	$Pv_O - Vis_I$
0°	0.000	0.000	0.000	0.000	0.000	0.000
10	0.004	0.002	0.004	0.002	0.000	0.000
20	0.018	0.009	0.019	0.008	+0.001	−0.001
30	0.046	0.023	0.046	0.020	0.000	−0.003
35	0.068	0.034	0.065	0.028	−0.003	−0.006
40	0.094	0.047	0.090	0.039	−0.004	−0.008
45	0.130	0.065	0.122	0.053	−0.008	−0.012
50	0.177	0.088	0.164	0.071	−0.013	−0.017
55	0.240	0.120	0.219	0.095	−0.021	−0.025
60	0.324	0.162	0.295	0.128	−0.029	−0.034

Later, when Abbot's revised measures of transmission for Mount Wilson[2] became available, the corrections were calculated for both photographic and photovisual magnitudes. Curves of spectral sensitivity were obtained from small-scale spectrograms of skylight, for the plates and the filter used in deriving these magnitudes. Ordinates of the curves were multiplied by the corresponding transmission coefficients and combined to form weighted mean coefficients. The results for the zenith are: photographic transmission, 0.762; photovisual, 0.889; to which correspond the zenith extinctions 0.295 and 0.128 mags., respectively. The corresponding reductions to the zenith, in magnitudes, for different zenith distances are given in Table XII, under the heading "Observed."

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[1] *Photometrie der Gestirne* (Leipzig, 1897).

[2] *Annals of the Smithsonian Astrophysical Observatory*, 3, 138, 1913.

Although the observed values are to be preferred, the reductions were completed with the interpolated results. As far as the present investigation is concerned, the differences between the two series are negligible.

8. MEASUREMENT OF COORDINATES

a. Long-Exposure Photographs.—These photographs were measured with the Repsold machine described in *Harvard Annals*, 101, p. LI. The microscope A through which the observer sees the plate is fixed, and the motion in the two rectangular coordinates is thrown on the plate. This motion is read from two scales, the divisions of which correspond exactly to 1′ on the plate. By means of ocular scales in the reading microscopes, with divisions corresponding to $0\overset{\prime}{.}1$, the readings can be made by estimation to the nearest $0\overset{\prime}{.}01$. The observing microscope A is also provided with an ocular scale in the direction of declination, covering a little more than 5′, the divisions of which correspond to 10″. As will be explained presently this scale is used for measuring the y coordinate.

The plate was oriented on the equinox of 1900 by means of the positions of a few stars given in the *Harvard-Groningen Durchmusterung*[1]. The measures were made in zones of constant declination 5′ wide. An example will best illustrate the way in which the fields were limited. Suppose the field to be measured to be 15′×15′ and the coordinates of the central star to be $x = 97\overset{\prime}{.}26$[2], $y = +4'11''$. This star was brought on the ocular scale at the reading 4′11″, and the x scale (direction of right ascension) was shifted relatively to its mounting until the reading was $97\overset{\prime}{.}26$. The plate was then displaced exactly 5′ to the south in the y direction and firmly clamped in position. Next, the plate was shifted in the x direction until the reading of the x scale became $7\overset{\prime}{.}50$ less than that of the central star, and observations were begun at the full minute of arc nearest this reading. The button which moves the plate in the x direction was slowly and regularly turned (the y reading remaining unchanged) and each star coming to the transit of the ocular scale of the observing microscope A was bisected by the vertical thread. The observer at this microscope then estimated and called out the diameter of the image in seconds of arc and the reading on the ocular scale corresponding to the center of the star. A second observer read the x coordinate, and all the readings were entered in the ledgers by a third person.

The measures were continued until exactly 15′ in x had been covered. A zone 5′ wide, with an overlap in declination of about 20″ on each side, was thus completely observed. The y frame was then unclamped and moved 5′ to the north and reclamped in position. The second zone was observed like the first, between the same values of x. When all the zones (in the present case three) had been observed in this manner, a second measurement of the plate, quite independent of the first, was begun at once. The duplicate readings were recorded in the ledgers beside those of the first measurement, and, when complete, the observations were immediately compared. Stars of diameter −0 occurring in but one series of measures were only partly remeasured, and no completeness for such stars can be guaranteed. All other objects occurring but once were examined, and, if found to be real stars, were measured again. At the same time, all marked differences between the two measures of the x and y coordinates and of the diameters were looked up and set to rights.

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[1] *Harvard Annals*, 101, 1918; 102, 1923.

[2] In reality this coordinate is $x = 97\overset{\prime}{.}26 - 100' = -2\overset{\prime}{.}74$.

The fields measured include either three or four zones of 5′ width, according to galactic latitude. In case four zones were measured, the interval in x was extended to 20′. The latitudes and corresponding dimensions are

Galactic latitude	*Field measured*
− 40° to + 40°	15′ × 15′
± 40 to ± 90	20 × 20

For fields 15′×15′ the declination of the center of the region measured is the middle of the zone containing the central star; for fields 20′× 20′ it is the nearer edge of this zone. The limits in right ascension are the exact minutes nearest to the x coordinate of the central star, plus or minus half the side of the measured square. This rule has not been strictly adhered to, but the effect on the limits is small. The exact limits are given for each Area in Table XVIII (page XLIX).

The geometrical centers of the fields are thus always close to the optical centers (the central star), and should be distinguished from the origin for the coordinates x and y, which is always the exact minute of time in right ascension and the multiple of 10′ in declination nearest the position of the central star. The origin of coordinates is given at the head of each section of the *Catalogue.*

With the arrangement of the instrument and the procedure described above, the readings of the x scale and of the ocular scale of the observing microscope A represent approximately the definitive x and, with the difference of some exact multiple of 10′, the definitive y. The reduction consists in finding and applying the small corrections necessary to convert these readings into the final x expressed in minutes of arc, and the final y expressed in minutes and seconds of arc. These corrections were derived by means of the positions of the brighter stars appearing in the *Harvard-Groningen Durchmusterung.* The differences

x_{DM} *minus* measured x
y_{DM} *minus* measured y

were formed. If these differences showed no regular change with x, their means were adopted as the zone corrections and applied to all the stars in the zone. If a systematic change with x was revealed, the correction was assumed to be proportional to x and the zone correction was accordingly varied with this coordinate.

The corrected positions of the stars in the overlapping portions of the adjacent zones were then compared. If these showed systematic differences, corrections depending on y were then derived and applied. These never exceed 2″ in y and 0′.02 in x. The correction in x is a consequence of a defective orientation of the transit line of the ocular scale in the observing microscope; that in y, of a defective scale value of the ocular scale. The corrections were applied to the means of the two measurements.

For all Areas except No. 1, the right ascensions were computed by means of the formula

$$\alpha - A = 4\,x \sec \delta,$$

x being expressed in minutes of arc and $\alpha - A$ in seconds of time, where A is the right ascension of the zero point of the rectangular coordinates. The mean declination of the zone in which the star occurs has been used for δ. The maximum error thus introduced amounts to $0^{s}.5$ for declination +75° and $0^{s}.1$ for declination +60°; in all other cases it is less than $0^{s}.1$. The *Catalogue* right ascension is therefore given to the nearest 1^{s} for Areas at declination +75°, and to the nearest $0^{s}.1$ for the other Areas. The values of $\alpha - A$ were derived from tables giving $\alpha - A$ as a function of x for each zone.

For all Areas except No. 1, the declination of any star is very nearly equal to $D+y$, D being the declination of the origin of coordinates. The differences $\delta-(D+y)$ are shown in Table XIII and may be used to find the declination from the catalogue values of $D+y$. The correction is usually negligible.

TABLE XIII

Values of $\delta-(D+y)$

D	x		
	0′	±10′	±20′
+75°	0″	−3″	−13″
+60	0	−2	− 6
+45	0	−1	− 3
+30	0	−1	− 2
+15	0	0	− 1
0	0	0	0
−15	0	0	+ 1

For Area 1 the right ascension and declination of the stars were computed by means of the formulæ[1]

$$\left.\begin{aligned} \tan(\alpha - A) &= \frac{\sin x}{\cos(D+y)} \\ \tan\delta &= \cos(\alpha - A)\tan(D+y) \end{aligned}\right\} \qquad (49)$$

which are of ample precision for the purpose.

b. Diaphragm Photographs.—The rectangular coordinates of all stars observed on the diaphragm plates were required for identification of stars measured at Groningen, or for catalogue purposes in the case of stars not included within the limits of the Groningen fields (the "supplementary" stars of the *Catalogue*). A large Gærtner comparator, provided with motions in two rectangular coordinates, was fitted with adjustable scales, graduated to read minutes, and, by estimation, tenths of a minute of arc directly from the original negatives. The general method of measurement was similar to that used at Groningen, but the precision is only that sufficient for identification of the stars.

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[1] *Harvard Annals*, 101, p. LXIII.

Since the centers for the rectangular coordinates are the same as in the *Harvard-Groningen Durchmusterung*, the adjustment of the negative on the machine, and of the scales with respect to their mounting, was simplified by the fact that coordinates for the brighter stars were already available. With the plate mounted on the machine and approximately oriented, the central star of the Area was brought to the intersection of the cross-threads. The scales were then shifted relatively to their mounting until the readings equalled the coordinates of the central star as given in the *Durchmusterung*. After adjustment for orientation by means of stars near the edge of the field, the scales were clamped in position and the readings on the central star finally checked. With this arrangement, the x and y coordinates of any star could be read directly from the scales with all necessary precision and without any reduction whatever. As a matter of fact, the y scale was so graduated that the quantity read was the minutes and tenths of the approximate declination, which differs from y by some multiple of $10'$. In order that this simple procedure might also be followed for fields south of the equator, it was necessary only to turn the y scale end for end before beginning the measures.

The stars visible in the observing microscope were identified by means of the configurations shown on the numbered charts described in section 5b, page XX. The various divisions of the chart were measured successively in a systematic manner, the results being entered on cards, which were afterwards arranged in the order of increasing x coordinate for combination with the Groningen measures, or for segregation into the list of supplementary stars.

The right ascension was obtained by multiplying the x coordinate by a reduction factor and applying the result to the right ascension of the adopted origin, which is always the exact minute nearest the position of the central star. This transformation was made only for the supplementary stars, observed at Mount Wilson but not at Groningen. For all the other stars the coordinates measured at Groningen were adopted for the *Catalogue*. For these it was only a question of identification with Groningen measures, for which the right ascension itself was not required. As in the case of the long-exposure photographs, Area 1 is an exception, and had to be treated by means of equations (49).

Since the scale of the photographs is approximately $1' = 2.2$ mm, the graduation of the special scales presented no difficulty. For the fields used the ordinary plate corrections are small, and the error in the coordinates is sensibly that affecting the estimated tenths of a minute of arc. The error in orientation and in setting the scales for the coordinates of the central star is added to that of the estimates; but both orientation and adjustment of scales were always carefully checked. Moreover, the adopted coordinates for the supplementary stars depend on duplicate measures by two observers, made with independent adjustments. In general, therefore, these coordinates should be correct to the nearest $0\overset{'}{.}1$.

9. COMBINATION OF GRONINGEN AND MOUNT WILSON MEASURES

The diameters of images measured at Groningen on the long-exposure photographs were reduced to the magnitude scale of the diaphragm plates in the manner described in section 5a. The results were transferred to sheets, which were arranged in catalogue form and provided with additional columns to facilitate combination with the diaphragm magnitudes. These sheets were then forwarded to Pasadena for the final stage of the reduction. Comparison with the numerous diaphragm magnitudes showed that in several instances the scale determined with the aid of the sequences of selected standard stars that had been sent to Groningen could be slightly improved. This illustrates one of the circumstances referred to in section 5b which led to the extensive observation of magnitudes at Mount Wilson. When the probable error of a single magnitude is relatively large, the standards must be numerous, if satisfactory results are to be obtained, especially when the scale is to be extended beyond the limiting magnitude of the standards. Any systematic correction indicated by comparison with the more abundant data available at Mount Wilson was applied to the Groningen magnitudes. The results were then combined with the diaphragm magnitudes.

For Areas 1–25 the weighting was in accordance with the probable errors given in section 10; for the remaining Areas, however, it was decided after some further consideration of the various sources of error to give individual magnitudes from diaphragm and long-exposure photographs the same weight. In the majority of cases, however, the effect on the adopted mean magnitude arising from this difference in weighting is inappreciable.

10. PRECISION OF THE MAGNITUDES

The probable error of a final catalogue magnitude depends on the uncertainty in zero points and in the adopted mean scale of magnitudes, and on accidental errors of measurement. The zero-point errors have been considered in section 6c. The error affecting the adopted mean scales is difficult to estimate, but, except for very faint stars, is probably small, since the differences in the scales established with the aid of different apertures (differential scale errors) are in general small.

The combined effect of differential scale error and accidental errors of measurement and reduction is easily determined by means of the deviations of individual magnitudes from the adopted mean values. Because of differences in plates and in the measurement and reduction, it is desirable to discuss the results from diaphragm and long-exposure photographs separately.

Diaphragm Photographs.—Average residuals were formed for about 25 stars in each of 15 Areas, the selection being at random, except that 15 of the stars in each field were so faint that only two values were available—those derived from the 15-minute exposures with the full aperture, one depending on the scale determination with the $60-32$ combination, the other on the determination with the $60-S$ combination. The remaining 10 stars in each Area average about two magnitudes brighter, but in general are fainter than the fourteenth magnitude. Their mean magnitudes are based on an average of eight separate values and represent four or five different determinations of the scale. The results are

No. Values	*Av. Res.*	*P. E.*	*No. Stars*	*Mag. Interval*
2	±0.093	±0.111	225	16–18
8	±0.121	±0.109	144	14–16

The probable error is that of a single magnitude, calculated by the formula

$$\text{P. E.} = \pm 0.845 \frac{[v]}{\sqrt{n(n-1)}} = \pm 0.845 \frac{[v]}{n} \sqrt{\frac{n}{n-1}}$$

where n is the number of values from which the magnitude has been found and the factor $[v]/n$ is the average residual. These results show no dependence of precision on brightness. A more careful segregation of residuals according to magnitude, supplemented by data for very faint stars from about 30 additional Areas, reveals, however, a rapid increase in the residuals for the last magnitude above the limit of the plate, which averages 18.5. At this point the average residual referred to mean magnitudes based on two values is ±0.13 mag. The increase from ±0.093 given in the above tabulation is caused by a systematic difference in the scales established with the screen and the 32-inch diaphragm (see section 11), which appreciably affects the agreement of magnitudes for the faintest stars. A probable error computed under these circumstances has little significance and is omitted.

TABLE XIV

Probable Errors for Bright Stars

Mag.	Av. Res.	Av. No. Values	P. E.	No. Stars
<8	±0.140	5.1	±0.131	7
8–9	0.141	7.1	0.128	14
9–10	0.154	9.2	0.138	16
10–11	0.154	10.3	0.137	17
11–12	0.140	13.6	0.123	19
12–13	±0.147	14.9	±0.128	27

Some increase in error is also to be expected for bright stars. To test this, average residuals were formed for 100 stars brighter than the thirteenth magnitude distributed throughout 92 different Areas. The results, grouped according to brightness, are given in Table XIV. Since the number of stars is here but little greater than the number of fields, the effect of differential scale error is accidental in character. The probable error is about a fifth greater than that for stars in the magnitude interval 14 to 17.

Long-Exposure Photographs.—The errors affecting results from these plates may be determined either by comparing magnitudes for the same star obtained from the primary and secondary exposures, or by comparing the mean from the two exposures with the mean for the same star derived from the diaphragm plates. Both methods have been used.

TABLE XV

Probable Errors from Comparison of Primary and Secondary Images

Mag.	Av. Diff.	P. E.	No. Stars
13.8	±0.291	±0.174	27
14.7	0.297	0.177	57
15.4	0.249	0.149	122
16.3	±0.233	±0.139	114

The average differences between magnitudes from primary and secondary images for 320 stars in 15 different Areas, arranged according to brightness, give the results shown in Table XV, with a weighted mean probable error of ±0.153. Here the probable error for the result from a single image is 0.845 × 0.707 or 0.597 times the average difference. Further, 1142 stars in 20 different Areas, similarly treated, give an average probable error of ±0.164.

The comparison with magnitudes from the diaphragm plates is based on 1107 stars in different Areas. The mean difference without regard to sign is ±0.176 mag., which corresponds, closely enough, to a probable difference of ±0.149. The mean values from the diaphragm and long-exposure photographs include, on the average, 5.08 and 1.28 individual magnitudes, respectively. Since the two means are independent, the required probable error for a single magnitude from a long-exposure photograph is determined by

$$(0.149)^2 = \frac{(0.110)^2}{5.08} + \frac{r^2}{1.28}$$

whence $r = \pm 0.159$. The use of ±0.13 for the probable error of a diaphragm magnitude would reduce this result by only 0.003.

The agreement between these various results is as close as can be expected in view of the differences in the data and the approximate method used to calculate the probable errors. The errors of both series of measures show some dependence on brightness, but in the region of well-determined results ±0.11 mag. may be adopted as the probable error of a single diaphragm magnitude and ±0.15 mag. as the corresponding error for the long-exposure photographs. The relatively large value for the latter series is accounted for by the coarse grain of the plates and the fact that an individual magnitude depends on a single image, whereas each diaphragm magnitude is based on two images measured on a plate of finer grain.

The probable error of a catalogue magnitude varies within rather wide limits and depends on a number of factors—the total number of observations, the relative number from diaphragm and long-exposure photographs, the brightness of the stars, and the number of steps involved in the determination of the zero point. Although an estimate of the uncertainty in individual cases can be made with the aid of the foregoing results, general indications covering all possible conditions are difficult to formulate. As an illustration, however, we may consider stars of the fifteenth magnitude or fainter, in an Area involving a two-step zero point. From the results in section 6c the probable error of the zero point is estimated to be ±0.045 mag. For individual diaphragm and long-exposure magnitudes, we adopt ±0.11 and ±0.15 mag., respectively, as above. Further, it is supposed that each mean magnitude includes one value from a long-exposure photograph. For different numbers of observations the probable error of the mean should then run somewhat as follows:

No. Obsns.	1	3	5	7	9	11	13	15
P. E. Mean	±0.157	0.086	0.070	0.063	0.059	0.057	0.055	0.054 mag.

For fields connected directly with the Pole, the errors should be a little smaller; for those involving three steps in the zero point, a little larger.

These results show that little precision would have been gained for the faint stars by pushing the zero-point determinations to a higher degree of accuracy. On the other hand, the accuracy of the zero points is not such as to utilize fully the precision of the relative magnitudes of stars for which the number of observations is large. Should occasion demand, however, the zero points can be improved with the expenditure of comparatively little labor, whereas the improvement of the relative magnitudes would be a much more serious undertaking.

11. INTERNAL AGREEMENT OF SCALES

The accordance of the photographic magnitude scales derived with the aid of wire-gauze screens and diaphragms of different size was investigated some years ago in connection with measures of stars near the Pole.[1] The abundant material used for the present *Catalogue* permits a similar test.

The comparison was restricted to 27 Areas, selected at random, except that rich fields were chosen in order that a representative number of brighter stars might be available. Residuals referred to the means of the diaphragm magnitudes were collected from the reduction sheets of each Area for each of the following combinations of apertures:

15-minute exposures 60 − *S*, 60 − 32
2-minute exposures 60 − 32, 60 − 14

A maximum of 10 stars per magnitude was used for each combination in each Area. The number of bright stars, however, is usually less than this limit; the selection from the much more numerous faint stars was random, although an attempt was made to obtain a representative distribution over the field. The resulting systematic deviations are given in Table XVI, where the algebraic signs are such that when the tabulated differences are applied to the scale established by the combination of apertures shown in the column headings the result is the adopted mean scale.

TABLE XVI

Differential Scale Errors

Mag.	60 − 14 (2^{m})		60 − 32 (2^{m})		60 − 32 (15^{m})		60 − *S* (15^{m})	
	Dev.	No.	Dev.	No.	Dev.	No.	Dev.	No.
9.5	+0.02	45	−0.09	38	......	...	......	...
10.5	+ .03	81	− .07	82	−0.11	12	+0.20	17
11.5	+ .03	220	− .02	212	− .01	87	+ .18	71
12.5	.00	360	− .03	359	+ .03	168	+ .14	157
13.5	− .03	499	− .06	500	+ .07	242	+ .13	230
14.5	− .02	538	− .07	538	+ .02	269	+ .14	268
15.5	+ .01	540	− .03	540	− .01	270	+ .06	270
16.5	− .02	519	+ .01	509	.00	270	+ .03	270
17.5	−0.03	181	+0.03	179	+ .05	269	− .06	269
>18	......	...	......	...	+0.10	182	−0.11	182

As differential scale errors, these results are satisfactory except for the 60 − *S* combination. Here it is disappointing to find that the small systematic divergence of 2 per cent revealed by the original test has increased to 4 or 5 per cent. No certain explanation of this anomaly has been found. Any change in the screen constant must have occurred between the two investigations, because both tests include measures well distributed over the respective periods of observation, and a subdivision of the Selected Areas into smaller groups and an extension of the test to other Areas show that the divergence is much the same for all the groups examined.

When first discovered it was feared that the effect on the mean magnitudes might be serious, but that seems not to be the case. Except for the faintest stars, the magnitudes derived with the various diaphragms, all of which give reasonably accordant results, are of dominating influence in determining the mean scale. The extent to which this is the case does not appear from the data in Table XVI, for, through the omission of the residuals for the 9-inch diaphragm and the combination of certain others, the numbers of values given in the table do not indicate the true relative numbers of magnitudes obtained by the different combinations of apertures. To magnitude 17.5 or 18.0 the adopted scale is therefore essentially that of the diaphragms, and it is only between 18.0 and the limit at 18.5 or fainter that much disturbance is to be feared. Nor is it likely that the extension of the scale to the limiting magnitude of the *Catalogue* by means of long-exposure plates has been seriously affected. Any such extension is determined largely by considerations of continuity and regularity over the entire range of brightness, and a sudden change in scale near the point at which the extension begins receives but little weight.

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[1] Seares, *Mt. Wilson Contr.*, No. 97, Table XI; *Astrophysical Journal*, 41, 231, 1915.

In so far as it affects stars brighter than mag. 16.5, the foregoing conclusion finds a direct test in the following section.

12. COMPARISON WITH THE INTERNATIONAL PHOTOGRAPHIC SCALE

As already explained, the scale of magnitudes has been established independently in each Selected Area, the polar comparisons being used only to determine the zero point. Since the methods applied in determining scales for the Areas are essentially the same as those used for the scale of the North Polar Standards,[1] accordance with the Standards is to be inferred. A direct comparison is desirable, however, since a satisfactory agreement with the scale of the Standards means accordance with the international photographic scale.[2]

For Areas compared directly with the Pole and to the limiting magnitude corresponding to exposures of 2 minutes, the polar-comparison photographs may be used for such a test. In forming the mean zero-point correction, differences of the form

$$PS - RM = z$$

were calculated for individual stars covering the interval of brightness represented on the comparison photographs. In this formula PS represents the magnitude of a star in an Area as read from the curve of magnitudes defined by the North Polar Standards. RM is the relative magnitude of the same star, and z the zero-point correction as determined from this star. The adopted zero-point correction is Z, the mean of the several values of z. Further, the adopted mean magnitude of the star is

$$m = RM + Z = RM + z - v$$

where v is the deviation of z from the adopted mean zero-point correction. Hence

$$PS - m = v.$$

The magnitude PS is referred to the scale of the Polar Standards, while m is referred to the scale derived for the Area in question. Any scale difference thus enters directly into v, along with the accidental errors. The scale comparison therefore requires only the collection and combination of the residuals in the zero-point differences in such numbers as to eliminate, or at least to minimize, the accidental errors.

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[1] *Mt. Wilson Contr.*, No. 98; *Astrophysical Journal*, 41, 259, 1915.

[2] *Transactions of the International Astronomical Union*, 1, 1922.

Table XVII shows the mean of these residuals, arranged according to magnitude, for four groups of 9 or 10 Areas each, and for the entire 37 Areas for which polar comparisons were made.

TABLE XVII

Comparison of Catalogue Scale with Scale of Polar Standards

Mag.	Group 1		Group 2		Group 3		Group 4		Total, 37 Areas	
	Dev.	No.	Dev.	No.	Dev.	No.	Dev.	No.	Dev.	No.
11.5	+0.01	34	+0.01	12	−0.09	6	+0.03	6	0.00	58
12.5	− .02	46	− .03	38	+ .06	44	− .05	53	− .01	181
13.5	− .01	67	+ .05	96	+ .02	108	− .03	127	.00	398
14.5	− .01	122	− .02	110	+ .01	128	.00	168	.00	528
15.5	+ .03	76	−0.02	95	− .04	101	+0.04	128	.00	400
>16	−0.01	46	......	...	−0.01	6	......	...	−0.01	52

Besides ordinary accidental errors of measurement and a possible systematic difference in scales, the deviations are also affected by differences in gradation in the various exposures on the polar-comparison photographs. Although these enter accidentally into results from different plates, both the third and fourth groups show small progressive changes in the deviations which probably arise from this source. These disappear in the final mean, and as a whole, there is almost perfect agreement between the scale of the *Catalogue* and that of the Standards. Since the Polar Standards are in sensible agreement with the international scale,[1] this demonstrates the general accordance of the scale of the *Catalogue* with the international scale for the magnitude interval 11.0−16.5. Below this, to magnitude 17.5 or 18.0, agreement is also to be expected, although data for a direct test are not available.

13. THE CATALOGUE

The *Catalogue* gives magnitudes for stars in the 139 Areas on and north of the declination parallel at −15°. The positions of the individual Areas may be found by consulting the different sections of the *Catalogue;* they may also be found, collected in tabular form, on pages XLVIII and VI, respectively, of *Harvard Annals*, **101** and **102**. These tables give both equatorial and galactic coordinates of the centers for rectangular coordinates, and the equatorial and rectangular coordinates of the central star for each Area.

The *Catalogue* is arranged in the serial order of the Areas. The results for each Area are divided between a main list, which gives mean magnitudes of all stars within the limits of the field adopted at Groningen, and a supplementary list, which includes stars outside the Groningen field and hence measured only at Mount Wilson. To simplify the paging of the *Catalogue*, the supplementary stars for a few Areas have not been given a separate title line. They may be distinguished, however, by their numbers.

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[1] The Polar Standards of *Mt. Wilson Contr.*, No. 97; *Astrophysical Journal*, 41, 206, 1915, strengthened by additional material (*Mt. Wilson Contr.*, Nos. 234, 235; *Astrophysical Journal*, 56, 84, 97, 1922), which reduces the accidental error of individual magnitudes without appreciably changing the scale, represent the contribution from the Mount Wilson Observatory to the magnitude scale adopted at the Rome meeting of the International Astronomical Union. For residuals referred to the adopted scale, see *Transactions of the International Astronomical Union*, 1, 71, 1922.

This division arises from the fact that the Groningen and Mount Wilson fields do not coincide in center, size, or shape. The former are $15' \times 15'$ (gal. lat. $<40°$) or $20' \times 20'$ (lat. $>40°$), as indicated in the Area heading, and are centered as described on page XXXVII. The Mount Wilson fields are always circular, 23′ in diameter, and centered on the central star. Since homogeneous data within an accurately-known field are essential for statistical purposes, the stars observed only at Mount Wilson, which in general do not attain the limiting magnitude reached at Groningen, are relegated to the supplementary lists; had they been included with those measured on the long-exposure plates, the results would not have been uniform in limiting magnitude. As a matter of fact, the *Catalogue* as a whole is not uniform in this particular; the limit varies from field to field, but for any given Area the results in the main list are homogeneous, except in so far as the limiting magnitude may be affected by distance from the optical center of the field. This influence, however, can be determined and allowed for.

Counts of stars in both Groningen and Mount Wilson fields were made before the two series of measures were combined and have been published elsewhere;[1] but statistical applications of the present *Catalogue* in which size of field or limiting magnitude is of importance must be restricted to the main lists of stars.

Numbering of Stars.—To save space the catalogue numbers are indicated by column headings in the manner familiar in the various *Durchmusterung* catalogues. Stars of the supplementary list are distinguished by an appended "*s*". The total number of stars in the main and supplementary lists is 44,926 and 23,015, respectively, or 67,941 in all.

Magnitudes.—Within the limits of precision indicated in sections 6c, 10, 11, and 12, the magnitudes are on the international photographic scale.

Comparison of results from the 60- and 15-minute exposures revealed a considerable number of objects which, although brighter than the limiting magnitude, do not appear on the short-exposure photographs. For most of these the long-exposure image gives no suggestion of a defect in the film. Re-examination of the short-exposure plates showed, however, that only in rare instances had a star really been overlooked during measurement. The questionable objects must therefore be either variables or—notwithstanding the normal appearance of the images—defects. With one possible exception, however, no single instance of assured variability has presented itself in the entire investigation. Variables may have been observed, their changes in brightness, which must have been moderate, lying concealed in the errors of observation; but the percentage of such cases is probably too small to account for the number of discordances between the two series of measures.

There can be little doubt that most of these objects are spurious; some of them are certainly so, because they are bright and yet fail to show secondary images on the long-exposure plate, as they should if real stars. But since some of the fainter ones, which lack this control, may be variables, it is impossible to reject them outright. The magnitudes in question have accordingly been distinguished by an appended "d," signifying a probable defect. The number of instances of this kind is such as to suggest an increase in the caution normally to be exercised in accepting magnitudes based on single images.

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[1] *Mt. Wilson Contr.*, No. 301; *Astrophysical Journal*, 62, 320, 1925.

The symbols immediately following the magnitudes have the following significance:

? Existence of star doubtful. The object is either outside the limits of the field measured at Mount Wilson on the photographs of 15 minutes exposure, or too faint to be visible on these photographs. In addition, the image on the long-exposure plate presents some peculiarity which suggests the possibility of a defect in the film.

d Object invisible on short-exposure photographs although, as measured at Groningen, it appears to be brighter than the limiting magnitude of these photographs. Long-exposure image apparently normal. The object is probably a defect, but it may be a variable.

: A double star, the catalogue magnitude representing the combined light of the components. Differences in relative brightness, in separation, and in exposure time prevent a uniform treatment of doubles. The notes at the end of the *Catalogue* should in general be consulted for further details.

x Image diffuse. This notation refers to the image on the long-exposure plates. If otherwise unobserved, the object is possibly a small nebula.

n A nebula.

† This symbol occurs only in the case of double stars and indicates that two magnitudes only are available for one of the components and that these differ by more than 0.8 mag.

w Measured only at Mount Wilson.

h Magnitude from *Harvard Annals*, **101** or **102**, corrected by an approximate reduction to the international scale.

* See notes at end of *Catalogue*.

Magnitude in Bold-Face Type.—The central star of the Area. Harvard visual magnitudes of these stars may be found in *Harvard Annals*, **101**, **102**, pages XLVIII and VI, respectively.

Number of Observations.—The figures following the adopted magnitude in the first column indicate the number of individual values on which the *Catalogue* mean is based. A few stars within the Groningen fields could not be measured on the long-exposure plates because of defective images or confusion with the secondary image of another star. With these exceptions, the magnitudes of the main list always include at least one value from the plates of 60 minutes exposure and single values are always from this source. Magnitudes from the secondary images on these plates are available only for stars brighter than about the sixteenth magnitude. All observations in excess of two, and in most instances those in excess of one, are therefore from the diaphragm plates of 2 minutes and 15 minutes exposure.

The magnitudes for all supplementary stars are from the diaphragm plates, and no star has been retained for this list unless at least two individual values from different plates are available.

Individual magnitudes from long-exposure plates are based on one image; those from diaphragm plates, on two images of equal exposure on the same plate.

Equinox.—The right ascension and declination are for 1900. Approximate positions for other epochs may be found with the aid of the precession for 25 years given at the bottom of each page of the *Catalogue*.

Right Ascension and x Coordinate.—The right ascension is given to the nearest tenth of a second for stars in the main list, except for Areas 1–8, and to the nearest second for the supplementary stars. Except for Area 1, α was calculated by the formula

$$\alpha = A + 4\,x \sec \delta$$

where A is the right ascension of the origin of coordinates given at the head of each Area and x the tabulated rectangular coordinate, expressed in minutes of arc. Values of x greater than 50 are to be subtracted from 100 and given the negative sign. All other values of x are positive and are to be used as they stand.

The hour of right ascension is on the left at the top of the page, the minutes in the heading of the right ascension column. In case the printed number of seconds is greater than 60 or any multiple of 60, that multiple is to be dropped and the entry at the head of the column increased by the corresponding number of minutes. The exact limits of x for the Groningen fields are given in Table XVIII.

TABLE XVIII

Limiting Values of x Coordinates

Area	Limits	Area	Limits	Area	Limits	Area	Limits
1	92′ – 7′	36	92′ – 7′	71	1′.46 – 16′.46	106	83′ – 3′
2	92 – 7	37	87 – 2	72	94 – 9	107	89 – 9
3	91 – 6	38	94.57 – 9.57	73	5.37 – 20.37	108	96 – 11
4	94 – 9	39	91 – 6	74	96 – 11	109	88 – 3
5	91 – 11	40	88 – 3	75	6 – 21	110	95 – 10
6	91.38 – 6.38	41	88 – 3	76	1 – 16	111	96 – 11
7	94 – 9	42	90 – 5	77	1.62 – 16.62	112	96.66 – 11.66
8	90 – 5	43	91.55 – 6.55	78	3 – 23	113	97.45 – 12.45
9	89 – 4	44	94 – 9	79	0 – 20	114	94 – 14
10	90 – 5	45	94.51 – 9.51	80	98 – 18	115	92 – 12
11	90.50 – 5.50	46	98 – 13	81	91 – 11	116	90 – 10
12	88 – 8	47	88 – 3	82	0 – 20	117	91 – 11
13	90 – 10	48	86.70 – 1.70	83	91 – 11	118	95 – 15
14	93 – 13	49	88 – 3	84	93 – 13	119	92 – 12
15	87 – 7	50	97.33 – 12.33	85	5.38 – 20.38	120	92 – 12
16	90 – 5	51	97 – 12	86	3.42 – 18.42	121	91 – 6
17	90 – 5	52	89 – 4	87	96 – 11	122	97.08 – 12.08
18	96 – 11	53	85.32 – 5.32	88	6 – 21	123	95.55 – 10.55
19	92.68 – 7.68	54	92 – 12	89	95 – 10	124	88 – 3
20	96 – 11	55	87 – 7	90	3.74 – 18.74	125	97 – 12
21	91 – 6	56	92 – 12	91	92 – 12	126	92.38 – 7.38
22	94.60 – 9.60	57	88 – 8	92	88 – 8	127	90 – 10
23	88 – 3	58	90 – 10	93	86 – 6	128	87 – 7
24	88.66 – 3.66	59	89 – 9	94	87 – 7	129	90 – 10
25	97 – 12	60	92 – 12	95	79 – 94	130	87 – 7
26	96 – 11	61	90 – 5	96	88 – 3	131	99 – 14
27	95 – 10	62	95.45 – 10.45	97	97 – 12	132	88 – 3
28	91 – 6	63	95 – 10	98	93.37 – 8.37	133	88 – 3
29	85 – 5	64	86.50 – 1.50	99	87.59 – 2.59	134	97 – 12
30	94 – 14	65	96 – 11	100	90.58 – 5.58	135	92 – 7
31	89 – 9	66	97 – 12	101	93 – 13	136	89 – 4
32	85 – 5	67	93.30 – 8.30	102	94 – 14	137	92 – 7
33	91 – 11	68	95.30 – 15.30	103	88 – 8	138	85 – 5
34	88 – 8	69	95 – 15	104	90 – 10	139	89 – 9
35	95 – 15	70	94.53 – 14.53	105	85 – 5	...	....

Declination and y Coordinate.—The degrees of declination appear on the right at the top of the page. The body of the table gives the values of $y + n \times 10'$, where $n \times 10'$ equals the minutes of D, the declination of the origin of coordinates shown in the Area heading. The tabulated quantity is therefore the minutes and seconds (minutes and tenths, in the case of supplementary stars) of $y + D$, which, in general, differs from the declination of the star for 1900 by a negligible amount. (See Table XIII.) Area 1 is an exception, for which the relations between x and y and α and δ are defined by equations (49). Numerical examples illustrating the use of these formulæ may be found in *Harvard Annals*, 101, page LXXXVI.

Acknowledgments for assistance are due to many. First to Messrs. Babcock, Fath, and Shapley for their share in the execution of the observational program, and to Mr. W. P. Hoge, who served as night assistant during most of the time that the observations were in progress.

Further, to Mr. T. W. de Vries, observer at the Groningen Laboratory, who made all the measurements of the long-exposure plates, and to the computers of the Laboratory, E. J. Rondeel and J. M. de Zoute, who performed the greater part of the reductions.

And finally, to the members of the Computing Division who made the measures and routine reductions at Mount Wilson. Miss Carolyn Burns, Miss Helen Burns, Miss High, Miss McClees, Miss Smith, Miss West, Miss Winn, and Miss Wolfe all had some part in the work; but by far the greater portion has fallen to Miss Joyner and Miss Richmond, who are responsible, not only for the measurement and reduction of many individual plates, but also for the determination of the coordinates of the stars and the combination of the results, in catalogue form, with those obtained at Groningen from the long-exposure photographs. The completeness and consistency of the *Catalogue* in respect to the innumerable details which arise in the compilation of any extensive series of data are due to the unremitting care of Miss Joyner.

Any expression of obligations would be incomplete without some reference to the stimulating interest of Kapteyn in the attempt to increase our knowledge of the number and brightness of the stars, an undertaking which to our deep regret he was unable to see completed. The initiative for this investigation was his, as it was for so many others. Under the impetus of his discovery of stream motions among the stars, sidereal astronomy entered upon a period of activity which tacitly recognized the galactic system as a unit, presenting a high degree of organization and many regularities of structure. In the systematic determination of magnitudes on a large scale Kapteyn quickly saw one of the essentials for any detailed knowledge of the structural features of the system, and to the practical aspects of this question he gave much time and thought. The present volume is a contribution to the data upon which a more intimate knowledge of the galaxy must ultimately be based.

F. H. S.
P. J. v. R.

Area 1. Center for 1900: $8^h\ 0^m + 89^\circ\ 0'$ (15′ × 15′)

1—60							61—116						
Mag.	x	y	α	δ	25 pr. α	25 pr. δ	Mag.	x	y	α	δ	25 pr. α	25 pr. δ
	′	′ ″	h m s	° ′ ″	m s	′ ″		′	′ ″	h m s	° ′ ″	m s	′ ″
17.63? 1	92.07	98 3	7 30 49	+88 57 33	+29 34	−3 14	17.01 3	0.15	4 56	8 0 37	+89 4 56	+31 20	−4 12
15.81 8	92.15	92 29	33 28	88 52 2	27 8	3 19	17.80 2	0.51	97 18	1 52	88 57 18	27 36	4 14
15.38 7	92.34	3 33	29 5	89 3 2	32 23	3 10	16.19 3	0.71	93 56	2 28	88 53 56	26 13	4 15
17.41 3	92.37	99 3	31 28	88 58 35	30 0	3 15	17.72 1	0.96	92 24	3 15	88 52 24	25 36	4 17
16.98 3	92.54	4 53	29 10	89 4 24	33 8	3 10	16.80 3	1.26	1 33	4 56	89 1 32	29 17	4 20
16.81 3	92.55	93 30	34 26	88 53 5	27 30	3 21	17.80 2	1.36	98 16	5 3	88 58 15	27 47	4 20
16.95 3	92.56	99 37	31 54	88 59 9	30 15	3 16	17.19 1	1.37	94 27	4 47	88 54 26	26 15	4 20
16.73 3	92.60	1 56	30 57	89 1 28	31 27	3 14	18.40 1	1.45	98 14	5 23	88 58 13	27 45	4 21
14.02 13	92.95	2 1	32 16	89 1 35	31 26	3 16	16.82 3	1.67	1 17	6 31	89 1 16	29 2	4 23
16.97 3	93.00	96 15	34 56	88 55 52	28 36	3 22	16.94 3	1.75	0 39	6 45	89 0 37	28 43	4 23
17.95 1	93.07	97 26	34 43	88 57 4	29 8	3 21	17.33 3	1.76	1 0	6 50	89 0 59	28 52	4 23
17.63 1	93.08	97 5	34 54	88 56 43	28 58	3 22	11.03w 11	1.81	94 31	6 20	88 54 29	26 10	4 23
18.32 1	93.46	95 51	36 43	88 55 31	28 22	3 25	15.71 9	1.90	2 47	7 37	89 2 45	29 40	4 25
15.43 9	93.51	91 0	38 30	88 50 42	26 24	3 29	17.43 3	2.18	97 7	7 57	88 57 4	27 5	4 25
16.53 3	93.61	1 30	35 4	89 1 9	31 3	3 22	15.03 9	2.26	92 47	7 42	88 52 45	25 26	4 25
17.44 3	93.86	92 16	39 17	88 51 59	26 49	3 30	15.54 9	2.37	3 1	9 32	89 2 58	29 38	4 28
17.38 3	93.92	2 47	35 44	89 2 28	31 42	3 23	17.52 3	2.56	1 57	10 6	89 1 54	29 3	4 30
17.72 1	94.17	94 6	39 47	88 53 50	27 31	3 31	16.19 8	2.66	96 41	9 37	88 56 37	26 47	4 29
17.50 3	94.28	94 10	40 8	88 53 56	27 32	3 32	17.63 1	2.68	99 34	10 9	88 59 31	27 58	4 30
17.53 3	94.30	97 21	39 12	88 57 5	28 54	3 30	14.59 11	2.69	2 13	10 40	89 2 9	29 8	4 30
18.25 1	94.39	0 20	38 31	89 0 4	30 19	3 29	17.28 3	2.70	4 43	11 11	89 4 39	30 21	4 31
17.95? 1	94.64	94 1	41 25	88 53 48	27 25	3 35	18.03 1	2.79	97 34	10 14	88 57 30	27 6	4 30
16.02 9	95.02	93 15	42 56	88 53 4	27 3	3 38	15.82 9	2.80	0 35	10 48	89 0 31	28 22	4 31
18.03 1	95.07	91 27	43 33	88 51 16	26 20	3 39	17.63 1	3.06	92 43	10 25	88 52 39	25 13	4 30
14.02 10	95.29	3 0	41 6	89 2 48	31 33	3 34	17.46d 1	3.45	98 31	12 51	88 58 25	27 17	4 35
17.87 1	95.46	96 35	43 37	88 56 25	28 22	3 39	14.95 9	3.57	98 17	13 15	88 58 11	27 9	4 35
17.54 2	95.48	98 38	43 9	88 58 28	29 17	3 38	17.35 3	3.66	92 58	12 30	88 52 52	25 10	4 34
15.66 8	95.66	93 6	45 9	88 52 58	26 53	3 42	17.43 3	3.72	3 28	15 4	89 3 21	29 22	4 39
17.95? 1	95.84	1 5	43 51	89 0 56	30 25	3 39	17.48 3	3.80	92 57	12 59	88 52 50	25 7	4 35
15.59 9	95.97	93 19	46 10	88 53 12	26 55	3 44	17.40 3	3.86	92 43	13 8	88 52 36	25 2	4 35
16.47d 1	96.08	94 18	46 21	88 54 11	27 18	3 44	18.03 1	3.87	99 1	14 31	88 58 53	27 22	4 38
17.80 1	96.12	94 23	46 28	88 54 16	27 19	3 45	17.43 3	4.24	0 34	16 19	89 0 25	27 54	4 41
11.91w 11	96.65	99 33	47 19	88 59 27	29 29	3 46	16.02 9	4.35	1 9	16 54	89 0 59	28 6	4 42
16.00 9	96.66	99 46	47 18	88 59 40	29 36	3 46	17.55 3	4.70	97 34	17 13	88 57 24	26 32	4 43
17.55 1	96.77	96 49	48 18	88 56 44	28 13	3 48	16.76 3	4.74	95 12	16 44	88 55 1	25 39	4 42
17.48 2	96.78	95 51	48 30	88 55 46	27 48	3 49	17.87 1	4.76	96 56	17 16	88 56 45	26 17	4 43
17.80 1	96.84	92 50	49 14	88 52 46	26 35	3 50	16.00 7	5.00	3 18	20 10	89 3 5	28 49	4 48
17.80 1	96.90	94 16	49 12	88 54 11	27 8	3 50	16.62 3	5.04	90 38	16 38	88 50 28	24 4	4 41
15.91 8	97.00	95 49	49 18	88 55 45	27 45	3 50	17.35 3	5.06	90 42	16 42	88 50 31	24 4	4 42
17.32 2	97.09	98 26	49 10	88 58 22	28 53	3 50	17.42 3	5.08	95 8	17 55	88 54 56	25 32	4 44
17.62 2	97.24	90 7	50 57	88 50 4	25 30	3 53	17.80? 1	5.21	3 0	20 54	89 2 46	28 36	4 49
17.80 1	97.24	94 30	50 21	88 54 27	27 10	3 52	17.12 3	5.27	99 20	19 51	88 59 7	27 3	4 47
17.57 3	97.27	1 30	49 19	89 1 26	30 19	3 50	17.10 3	5.33	99 45	20 13	88 59 31	27 12	4 48
16.46 4	97.63	94 18	51 44	88 54 16	27 0	3 55	17.11 3	5.41	93 34	18 37	88 53 21	24 54	4 45
17.09 3	97.89	99 8	52 4	88 59 5	29 2	3 55	17.48 2	5.41	91 26	18 3	88 51 14	24 13	4 44
17.35 2	98.29	97 23	53 45	88 57 21	28 9	3 59	10.35w 11	5.46	94 38	19 6	88 54 25	25 15	4 46
13.72 11	98.32	94 44	54 6	88 54 43	27 3	3 59	17.55 1	5.57	96 10	19 57	88 55 56	25 46	4 47
17.22 3	98.47	98 20	54 19	88 58 19	28 32	4 0	17.55 1	5.74	3 40	23 16	89 3 23	28 42	4 53
17.64 2	98.49	94 0	54 45	88 53 59	26 43	4 1	17.11 3	5.75	4 9	23 31	89 3 51	28 54	4 54
17.87 1	98.65	98 14	54 59	88 58 13	28 27	4 1	17.37 1	5.78	3 43	23 27	89 3 25	28 42	4 54
15.91 4	98.67	92 29	55 29	88 52 28	26 6	4 2	17.72 1	6.43	1 32	25 6	89 1 11	27 31	4 57
17.28 3	99.05	90 26	56 52	88 50 26	25 18	4 5	17.23 3	6.55	90 59	21 41	88 50 41	23 47	4 50
16.86 3	99.24	92 56	57 24	88 52 56	26 9	4 6	17.80 1	6.62	0 37	25 27	89 0 15	27 5	4 57
17.95 1	99.32	94 56	57 36	88 54 56	26 55	4 6	18.03 1	6.63	94 59	23 17	88 54 39	25 2	4 53
7.27w 4	**99.45**	**95 59**	**58 2**	**88 55 59**	**27 18**	**4 7**	17.26 3	6.77	91 27	22 34	88 51 7	23 52	4 52
17.87 1	99.56	93 52	58 29	88 53 52	26 27	4 8	16.30 3	6.77	97 8	24 35	+88 56 46	+25 44	−4 56
17.33 3	99.64	2 37	58 34	89 2 37	30 16	4 8							
15.82 3	99.91	95 53	59 41	88 55 53	27 10	4 10							
17.40 3	99.96	99 50	59 51	88 59 50	28 51	4 10							
17.64 2	99.98	97 31	59 56	+88 57 31	+27 49	−4 11							

25 prec. in x and y + 7′.57, − 251″

Area 1. Supplementary Stars

1*s*—30*s*

Mag.		x	y	α	δ	25 pr. α	25 pr. δ
		′	′	h m s	° ′ ″	m s	′ ″
16.24	2	88.8	93.8	7 21 47	+88 52 49	+27 48	−2 51
16.56	2	88.9	91.9	22 58	88 51 0	27 1	2 54
17.09	2	89.1	99.6	19 5	88 58 38	30 32	2 45
15.56	7	89.2	95.3	22 5	88 54 24	28 27	2 52
15.73	6	89.2	98.0	20 19	88 57 0	29 42	2 47
16.02	2	89.4	95.4	22 43	88 54 32	28 29	2 53
16.88	2	89.9	0.0	21 47	88 59 10	30 41	2 50
17.16	2	90.1	90.6	27 31	88 49 54	26 24	3 3
14.88	7	90.5	0.7	23 36	88 59 57	31 0	2 55
17.08	2	90.6	99.0	25 10	88 58 14	30 0	2 58
15.86	7	90.8	96.6	26 48	88 55 56	28 55	3 2
16.16	2	90.9	95.6	27 50	88 54 58	28 26	3 4
17.24	2	90.9	98.9	26 7	88 58 14	30 1	3 0
17.20	2	91.0	98.6	26 39	88 57 57	29 51	3 1
16.34	2	91.2	88.3	32 1	88 47 46	25 26	3 12
15.43	7	91.4	92.7	30 52	88 52 9	27 7	3 10
17.14	2	91.4	4.0	25 5	89 3 21	32 47	2 58
16.36	2	91.6	90.2	32 22	88 49 44	26 7	3 13
14.22	10	91.6	98.5	28 53	88 57 56	29 44	3 5
15.87	4	91.6	4.0	25 39	89 3 25	32 47	2 59
14.66	9	91.7	97.6	29 42	88 57 3	29 17	3 7
17.18	2	91.8	92.3	32 22	88 51 48	26 55	3 13
16.77	2	93.6	87.2	39 44	88 46 58	24 48	3 29
15.97	4	93.7	5.8	33 27	89 5 29	33 36	3 15
15.72	7	94.1	5.9	35 6	89 5 35	33 33	3 18
15.95	6	94.6	5.5	37 22	89 5 14	33 12	3 23
17.09	2	94.7	87.0	43 23	88 46 48	24 34	3 36
16.92	2	95.2	6.6	39 27	89 6 23	33 47	3 28
15.19	7	96.9	5.2	47 3	89 5 7	32 31	3 43
16.98	2	97.2	86.4	51 8	+88 46 18	+24 0	−3 52

31*s*—53*s*

Mag.		x	y	α	δ	25 pr. α	25 pr. δ
		′	′	h m s	° ′ ″	m s	′ ″
15.54	7	99.0	6.6	7 55 29	+89 6 38	+32 50	−4 0
16.52	2	99.4	89.7	7 58 3	88 49 42	24 47	4 6
16.16	2	99.6	87.0	7 58 45	88 47 0	23 50	4 8
16.08	2	0.7	85.9	8 2 10	88 45 54	23 17	4 14
17.12	2	0.8	5.6	3 10	89 5 36	31 38	4 16
17.02	2	0.9	86.4	2 48	88 46 24	23 24	4 15
17.24	2	1.4	87.0	4 14	88 46 59	23 30	4 18
15.82	7	2.3	87.3	7 15	88 47 16	23 25	4 24
14.24	10	3.8	6.0	16 20	89 5 55	30 44	4 41
16.10	2	3.9	86.2	12 6	88 46 6	22 45	4 33
17.06	2	4.5	5.8	18 59	89 5 37	30 20	4 46
16.66	2	6.6	88.6	20 57	88 48 15	22 52	4 50
17.34	2	7.2	93.3	24 39	88 52 55	24 11	4 57
17.15	2	7.4	91.3	24 36	88 50 54	23 29	4 57
15.92	2	7.4	97.1	26 50	88 56 40	25 27	5 1
17.34	2	7.5	98.2	27 41	88 57 45	25 49	5 2
17.02	2	7.9	0.7	30 21	89 0 11	26 39	5 7
16.37	2	8.6	90.8	28 20	88 50 16	23 0	5 4
16.86	2	9.3	98.0	34 7	88 57 18	25 7	5 14
17.14	2	9.6	95.0	33 36	88 54 18	24 0	5 13
16.10	2	9.8	91.6	32 29	88 50 57	22 56	5 11
16.45	2	9.8	98.3	36 6	88 57 32	25 2	5 18
16.88	2	10.2	97.2	36 45	+88 56 26	+24 33	−5 19

25 prec. in x and y + 7′.57, − 251″

1—60					61—120					121—180					181—240					241—300				
Mag.		α 2^{m}	x	$y+20'$	Mag.		α 3^{m}	x	$y+20'$	Mag.		α 4^{m}	x	$y+20'$	Mag.		α 4^{m}	x	$y+20'$	Mag.		α 5^{m}	x	$y+20'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
17.50	2	55	92.01	11 22	17.00	3	40	94.86	10 49	16.04	9	14	97.09	17 59	16.98	3	54	99.60	21 50	17.61	2	33	2.09	11 33
17.65	2	55	92.01	11 15	17.74	2	39	94.86	22 27	19.02	1	15	97.14	16 58	16.87	3	54	99.62	12 28	15.86	11	34	2.13	10 38
16.62	3	54	92.05	23 30	16.90	3	39	94.87	22 38	15.21	12	15	97.14	21 38	17.86?	1	55	99.71	11 43	16.20	6	35	2.20	11 14
18.51	1	55	92.09	21 59	18.90	1	40	94.95	15 33	17.86?	1	16	97.19	19 20	19.14	1	57	99.78	16 55	18.51	1	36	2.27	15 59
15.59	11	56	92.09	11 13	17.01	3	41	94.97	10 13	17.70	2	16	97.20	24 51	18.40	1	57	99.79	24 27	18.76	1	36	2.32	15 51
17.37	3	58	92.19	12 55	17.56	2	43	95.11	17 48	17.66	2	17	97.30	24 36	17.97	1	57	99.81	17 34	18.29	1	40	2.49	21 04
17.36	2	56	92.19	24 31	17.55	2	44	95.18	23 30	16.67	3	18	97.37	21 38	17.42	2	57	99.81	19 52	17.09	3	39	2.50	13 53
15.84	10	57	92.21	15 14	15.05	11	45	95.19	14 21	16.60	3	19	97.40	15 27	17.75	1	57	99.84	16 52	15.84	9	39	2.51	14 25
17.81	2	57	92.22	17 28	17.97	1	44	95.20	16 12	18.51	1	19	97.41	13 33	17.53	1	58	99.86	20 48	17.27	3	40	2.57	14 09
17.35	1	58	92.29	21 52	17.86	1	44	95.22	18 55	17.17	3	20	97.44	12 53	14.56	14	58	99.86	20 54	18.51	1	41	2.58	10 59
17.75	1	60	92.42	18 34	17.66	2	45	95.27	18 02	18.90	1	20	97.45	19 07	17.41	3	60	99.99	12 45	16.36	3	41	2.58	12 23
16.40	6	60	92.44	22 44	18.90	1	46	95.31	17 28	17.75	1	19	97.45	23 14	17.59	3	60	0.00	19 40	15.99	9	41	2.62	19 08
17.15	3	61	92.44	10 58	18.07	1	46	95.31	21 39	17.10	3	21	97.48	10 25	18.40	1	60	0.01	18 49	17.70	2	42	2.64	17 04
15.85	10	62	92.46	13 20	18.18	1	46	95.32	24 01	18.90	1	21	97.51	17 22	18.18	1	61	0.05	14 10	15.52	11	43	2.68	23 04
18.51	1	61	92.48	23 09	18.90	1	47	95.32	14 29	17.64	1	21	97.54	23 59	14.90	12	61	0.07	12 00	17.86	1	43	2.70	19 52
15.64	10	61	92.49	22 37	15.28	12	47	95.34	19 38	18.40?	1	22	97.62	12 14	13.84	15	62	0.12	16 38	17.64	1	43	2.72	24 23
17.58	2	63	92.56	10 45	18.63	1	48	95.39	10 53	16.71	3	24	97.69	16 54	18.18	1	62	0.15	20 52	15.31	11	44	2.76	21 23
16.42	6	63	92.61	20 56	18.51	1	48	95.45	11 04	17.33	2	24	97.71	24 27	18.90	1	62	0.15	11 43	16.73	3	44	2.77	17 46
18.07	1	65	92.72	18 41	17.53	1	49	95.47	12 12	18.76	1	24	97.71	20 10	18.29	1	64	0.23	19 21	17.97	1	45	2.84	20 15
15.60	10	66	92.72	13 21	17.53	1	50	95.54	12 24	17.83	2	25	97.78	21 09	18.40	1	65	0.29	19 02	16.96	2	46	2.89	21 27
17.64	1	66	92.74	12 06	16.31	6	49	95.54	20 59	16.07	10	25	97.81	12 16	10.51 w	9	65	0.32	17 53	17.97	1	46	2.89	18 44
18.63	1	69	92.95	12 49	18.18?	1	50	95.61	23 32	18.09	2	26	97.84	20 53	17.09	3	65	0.34	20 02	18.07	1	48	3.04	24 46
17.53	1	69	92.96	22 49	16.40	9	51	95.61	13 30	18.07	1	27	97.88	13 25	15.75	10	66	0.41	20 49	17.77	2	49	3.14	16 58
17.86	1	71	93.07	12 57	18.51	1	51	95.64	17 45	17.77	2	29	98.00	11 48	16.77	2	66	0.42	18 56	17.36	2	49	3.15	17 51
18.63	1	72	93.14	19 28	16.87	3	51	95.67	21 56	17.30	3	29	98.07	22 49	17.61	3	67	0.45	14 26	17.97	1	50	3.16	15 51
18.63	1	73	93.22	17 08	18.51	1	52	95.70	24 40	17.92	2	30	98.11	10 05	17.86	1	70	0.61	21 02	18.76	1	50	3.17	14 17
17.86	1	73	93.22	15 20	15.87	9	52	95.70	18 17	18.76	1	30	98.11	18 20	17.74	2	69	0.62	12 06	15.94	9	50	3.22	18 45
18.63	1	74	93.27	12 32	18.29	1	52	95.70	20 33	19.02	1	33	98.31	13 37	17.12	3	71	0.67	22 21	16.74	3	52	3.28	10 03
15.98	10	75	93.36	17 28	16.67	3	53	95.74	16 46	18.76	1	35	98.45	13 09	18.40	1	71	0.70	12 57	17.66	2	52	3.31	19 54
18.07?	1	75	93.37	24 54	15.94	10	54	95.83	19 32	16.15	9	35	98.45	17 35	16.47	3	71	0.74	11 55	15.90	6	54	3.42	23 12
17.78	2	76	93.39	15 21	18.63	1	57	95.98	20 34	16.66	3	36	98.46	24 03	17.97	1	73	0.81	13 22	16.45	6	54	3.43	22 07
16.54	3	77	93.43	15 22	17.86	1	58	96.06	20 48	17.03	3	36	98.51	12 46	17.28	3	73	0.82	24 05	17.53	1	57	3.60	16 25
17.05	3	76	93.43	22 00	17.81	2	59	96.11	15 11	17.21	3	38	98.59	13 07	15.83	10	74	0.86	20 48	18.76	1	57	3.61	19 13
15.09	12	76	93.44	24 15	17.64	1	59	96.17	24 00	17.09	3	39	98.65	17 37	16.82	3	74	0.89	14 18	18.63	1	56	3.61	10 38
17.97	1	79	93.54	14 42	15.99	8	60	96.21	14 01	16.52	6	39	98.69	20 12	16.58	3	74	0.90	12 01	17.48	2	60	3.78	10 12
15.11	12	79	93.59	21 56	18.18	1	60	96.22	24 48	16.64	3	40	98.74	17 29	11.99 w	12	75	0.96	23 13	18.51	1	60	3.81	19 22
17.37	2	80	93.66	16 34	15.96	10	61	96.24	16 10	18.76	1	40	98.76	20 51	15.70	9	75	0.96	20 04	14.94	12	60	3.83	17 44
18.40	1	82	93.75	10 05	17.86	1	61	96.26	25 00	17.40	3	41	98.81	13 56	18.63	1	77	1.07	22 04	18.76	1	60	3.85	16 14
15.73	10	82	93.83	23 23	17.54	3	62	96.28	18 02	16.14	10	42	98.84	16 14	18.51	1	77	1.08	13 19	16.81	3	61	3.90	14 42
18.40	1	85	93.96	14 21	17.56	2	61	96.29	20 16	15.57	9	42	98.85	15 13	17.86	1	77	1.08	12 37	16.43	6	61	3.90	16 26
15.79	10	85	94.01	16 36	17.53	1	63	96.33	12 36	15.11	12	42	98.85	19 02	15.74	11	77	1.11	11 25	15.28	10	62	3.92	23 53
15.08	12	85	94.01	24 31	17.75	1	64	96.39	10 06	14.70	13	42	98.86	17 03	17.74	2	77	1.12	14 48	14.51	14	63	4.04	10 40
16.64	3	85	94.02	16 00	18.51	1	63	96.42	22 12	17.01	3	43	98.90	14 02	17.56	2	78	1.14	18 52	17.75	1	63	4.05	11 01
17.70	2	86	94.04	24 20	17.97?	1	64	96.43	16 37	17.81	2	44	98.99	11 02	18.63	1	79	1.20	15 11	16.67	3	63	4.05	13 14
17.63	2	86	94.06	24 50	18.25	2	65	96.48	19 32	18.90	1	45	99.04	20 15	17.74	2	80	1.31	15 03	17.01	3	64	4.12	11 06
17.97	1	87	94.07	14 03	17.16	3	66	96.53	14 41	18.76	1	45	99.04	19 10	16.56	3	84	1.48	10 21	16.37	6	66	4.15	23 44
18.63	1	87	94.11	20 09	15.93	10	66	96.59	23 06	18.07	1	46	99.15	17 58	18.18	1	84	1.49	22 26	18.76	1	65	4.15	16 22
16.66	3	87	94.12	15 43	18.63	1	66	96.61	22 09	16.55	6	47	99.20	20 25	15.58	11	84	1.53	11 44	17.40	2	66	4.17	18 37
18.18	1	87	94.13	20 17	17.92	2	66	96.62	20 14	17.64	1	47	99.21	24 05	15.52	10	84	1.55	12 56	18.63	1	66	4.20	10 50
18.15	2	88	94.14	15 17	17.75	1	67	96.64	24 18	15.90	10	47	99.22	10 29	14.02	15	85	1.58	19 53	16.43	3	67	4.21	21 53
17.70	2	88	94.16	23 18	18.07	1	67	96.66	19 48	17.75	1	48	99.24	22 10	17.75	1	85	1.58	18 48	17.75	1	67	4.24	20 22
17.75	1	90	94.31	20 30	17.97	1	68	96.68	15 03	17.76	2	48	99.25	16 57	18.90	1	85	1.59	18 17	16.24	9	68	4.27	22 52
17.74	2	91	94.32	10 28	18.90	1	69	96.76	12 41	18.29	1	49	99.31	23 13	15.57	11	86	1.65	20 26	17.86	1	68	4.29	22 48
18.40	1	92	94.39	14 51	15.92	10	70	96.83	18 12	17.35	1	49	99.34	20 04	17.86	1	87	1.69	12 11	17.64	1	68	4.31	20 43
17.58	2	91	94.41	21 49	17.45	2	71	96.91	24 20	16.29	9	50	99.34	19 05	15.84	11	87	1.70	13 27	17.64	1	69	4.37	23 52
17.91	2	97	94.69	15 32	16.46	9	71	96.94	21 25	9.95 w	10	50	99.35	16 18	16.51	6	91	1.94	20 56	18.29	1	69	4.39	19 07
17.22	3	97	94.72	19 06	14.64	14	72	96.95	10 10	17.75	1	51	99.38	16 47	17.86	1	91	2.00	12 34	18.18	1	69	4.40	16 44
15.08	11	97	94.76	24 59	18.51	1	73	97.03	24 36	16.59	6	52	99.48	17 04	17.10	2	91	2.01	15 47	15.78	10	70	4.45	18 58
17.75	1	98	94.80	17 14	17.48	3	74	97.08	17 10	16.01	10	53	99.53	17 49	18.18	1	92	2.02	24 42	18.51	1	71	4.49	10 41
17.75	1	99	94.81	12 57	18.51	1	75	97.09	12 33	16.47	6	53	99.54	20 25	17.25	3	92	2.03	18 26	17.35	3	71	4.50	12 26

25 prec. + 79^{s}, + 8′ 21″

301—320					321—340					341—360				
Mag.		α 6^{m}	x	$y+20'$	Mag.		α 6^{m}	x	$y+20'$	Mag.		α 6^{m}	x	$y+20'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″
18.51	1	14	4.70	22 18	13.99	13	27	5.49	16 29	16.19	9	41	6.42	18 33
17.75	1	14	4.71	12 05	17.16	3	27	5.51	21 58	17.75	1	41	6.42	16 01
16.15	3	14	4.74	11 03	17.97	1	27	5.52	23 07	14.69	12	41	6.45	13 52
15.50	11	15	4.75	24 07	15.90	10	27	5.52	18 47	17.53	1	42	6.46	24 48
17.86	1	15	4.76	17 08	17.44	1	28	5.59	16 31	17.75	1	42	6.47	16 44
16.44	6	16	4.83	17 21	14.52	13	28	5.59	13 10	16.70	3	42	6.48	12 38
16.30	6	16	4.84	13 28	18.51	1	29	5.62	23 08	17.53	1	43	6.50	24 58
16.81	3	18	4.97	15 54	16.64	3	29	5.63	22 24	14.71	11	44	6.56	22 55
16.68	3	19	4.99	21 45	17.75	1	30	5.76	12 25	15.78	10	44	6.58	17 35
18.63	1	19	5.03	13 29	17.64	1	31	5.78	10 39	17.14	3	45	6.64	20 43
17.70	2	19	5.07	13 41	17.27	2	31	5.81	18 30	15.89	9	46	6.70	20 48
17.84	2	21	5.14	15 59	15.69	9	32	5.83	23 02	16.66	3	45	6.70	13 07
17.14	3	22	5.18	15 52	15.98	9	32	5.90	10 33	15.73	10	45	6.72	12 52
18.63	1	22	5.25	17 38	17.97	1	33	5.92	22 49	18.51	1	46	6.74	13 38
16.72	3	24	5.34	15 32	16.94	3	34	6.00	12 43	15.94	9	47	6.79	19 56
17.66	2	26	5.39	24 45	17.75	1	36	6.03	24 19	17.53	1	47	6.81	16 30
18.51	1	26	5.41	20 44	14.86	12	36	6.07	21 03	17.97	1	47	6.84	11 24
16.61	3	26	5.42	24 38	17.60	2	37	6.17	10 21	16.84	3	49	6.91	21 45
16.47	3	26	5.44	18 17	15.80	10	38	6.24	11 35	18.51	1	49	6.93	14 28
16.42	3	27	5.46	21 53	16.70	3	39	6.32	19 59	17.75	1	50	6.98	14 52

25 prec. + 80^{s}, + 8′ 21″

0^{h} Area 2. Supplementary Stars + 75°

1*s*—30*s*					31*s*—60*s*					61*s*—90*s*					91*s*—118*s*				
Mag.		α 2^{m}	x	$y+20'$	Mag.		α 3^{m}	x	$y+20'$	Mag.		α 4^{m}	x	$y+20'$	Mag.		α 6^{m}	x	$y+20'$
		s	′	′			s	′	′			s	′	′			s	′	′
16.74	2	1	88.6	13.6	16.42	2	33	94.4	7.0	15.67	8	58	99.8	9.4	15.74	8	54	7.3	9.6
11.70	14	6	88.9	12.6	11.04	11	32	94.4	8.7	16.46	2	60	0.0	26.8	15.94	8	54	7.3	10.5
16.88	2	6	88.9	13.2	16.12	2	39	94.8	6.8	16.58	2	64	0.2	26.1	15.42	9	54	7.3	12.2
16.93	2	6	89.0	15.2	16.78	2	40	95.0	26.6	13.77	11	65	0.4	5.5	16.13	5	56	7.3	22.9
13.30	14	10	89.2	16.4	16.51	2	45	95.2	6.0	15.89	7	77	1.1	9.2	16.10	2	59	7.6	14.9
15.71	8	20	89.8	11.6	16.75	2	47	95.4	8.8	14.70	10	81	1.3	27.6	16.74	2	61	7.6	22.4
14.31	13	26	90.2	12.7	16.96	2	52	95.7	26.6	16.08	5	82	1.4	7.7	16.38	2	61	7.7	14.9
16.54	2	25	90.2	19.7	17.12	2	54	95.8	9.5	16.10	5	85	1.6	27.2	16.14	5	62	7.7	21.6
14.91	10	25	90.2	20.0	16.06	2	53	95.8	26.8	15.82	2	94	2.2	8.2	16.60	2	62	7.8	13.2
16.86	2	25	90.2	21.6	15.52	8	57	96.0	25.6	15.90	8	94	2.2	9.8	16.54	2	68	8.2	16.2
13.86	14	29	90.4	14.6	15.47	7	64	96.4	5.2	15.42	8	104	2.8	9.2	15.57	8	70	8.2	22.0
17.17	2	33	90.6	13.6	15.82	8	67	96.6	6.0	15.64	8	105	2.8	26.3	15.90	7	70	8.3	9.6
16.13	8	31	90.6	15.8	16.69	2	71	96.8	5.3	16.86	2	105	2.8	26.5	16.42	2	71	8.4	12.8
17.06	2	32	90.6	18.6	16.40	2	70	96.8	7.1	15.83	7	110	3.2	7.9	16.54	2	73	8.4	15.0
16.88	2	32	90.6	19.2	16.60	2	76	97.2	7.8	14.14	13	117	3.6	25.2	15.64	8	73	8.4	19.3
16.06	5	36	90.8	14.4	16.46	2	79	97.4	5.6	16.20	5	118	3.6	25.3	15.70	8	75	8.6	14.4
15.45	9	36	90.8	15.0	13.89	13	82	97.6	26.4	16.27	5	125	4.2	7.6	16.48	2	75	8.6	20.4
16.06	8	38	91.0	15.8	13.50	13	86	97.8	8.4	16.58	2	135	4.8	9.6	15.43	9	76	8.6	22.5
13.59	13	46	91.4	9.7	10.12	10	91	98.2	25.9	16.56	2	136	4.8	25.8	16.66	2	77	8.8	13.7
16.26	2	45	91.4	11.0	16.32	2	95	98.4	25.2	15.94	5	147	5.4	25.8	16.80	2	79	8.8	14.5
15.82	8	44	91.4	18.0	16.33	2	96	98.5	27.4	16.73	2	147	5.5	25.6	14.99	9	82	9.0	21.8
16.83	2	43	91.4	20.6	15.70	8	98	98.6	5.0	12.10	14	150	5.8	7.3	16.68	2	83	9.2	11.8
16.85	2	47	91.5	12.8	16.18	2	98	98.6	5.1	16.34	2	150	5.8	7.8	16.86	2	85	9.2	20.4
16.51	2	45	91.5	23.5	15.97	2	101	98.8	5.8	15.96	5	151	5.8	9.2	12.95	11	91	9.6	13.4
16.44	2	45	91.5	23.8	14.93	10	105	99.0	25.8	16.69	2	153	6.0	8.2	16.21	2	92	9.6	14.8
16.44	2	49	91.6	11.1	16.81	2	108	99.2	9.4	15.31	9	156	6.2	8.2	16.76	2	91	9.6	18.7
16.60	2	46	91.6	21.4	16.14	8	107	99.2	25.7	14.48	10	172	7.2	10.9	16.03	5	93	9.8	13.7
17.02	2	50	91.8	22.9	16.45	5	111	99.4	9.4	16.34	2	173	7.2	12.2	12.65	14	99	10.1	18.2
14.36	12	77	93.4	9.6	15.58	8	115	99.7	9.2	14.96	10	173	7.2	16.6					
14.78	12	87	94.2	26.4	16.42	2	117	99.8	8.6	16.06	8	174	7.2	18.8					

25 prec. + 80^{s}, + 8′ 21″

Area 3. Center for 1900: $4^{h}\ 8^{m} + 75° 0′$ (15′ × 15′)

1—60				61—120				121—180				181—240				241—257			
Mag.	α 5^{m}	x	$y+60′$ / y	Mag.	α 6^{m}	x	$y+60′$ / y	Mag.	α 7^{m}	x	$y+60′$ / y	Mag.	α 8^{m}	x	$y+60′$ / y	Mag.	α 9^{m}	x	$y+60′$ / y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.64 3	42	91.04	59 19	16.63 7	28	94.01	56 05	15.74 10	23	97.64	2 43	16.64 6	27	1.73	58 54	17.62 2	14	4.84	53 37
18.27 1	43	91.11	56 11	18.02 3	29	94.05	54 30	17.29 3	24	97.66	55 29	18.42 1	29	1.88	0 59	18.27 1	15	4.87	59 23
16.69 5	43	91.12	56 43	14.96 13	29	94.08	1 11	17.07 3	25	97.77	0 33	17.65 2	30	1.93	1 34	13.59 14	17	4.98	52 20
17.75 1	44	91.17	59 05	17.56 3	30	94.09	50 37	16.50 6	26	97.78	0 23	18.14 2	31	1.98	4 54	17.30 3	18	5.09	50 40
13.33 13	46	91.33	57 47	18.35 1	31	94.19	58 56	18.57 1	26	97.78	56 37	17.58d 1	31	1.99	3 13	17.57 3	19	5.10	56 50
16.50 9	48	91.42	54 48	16.28 9	30	94.20	4 54	16.93 8	27	97.86	56 07	17.90 2	31	1.99	4 35	18.27 1	22	5.26	3 35
15.81 9	48	91.50	3 12	17.84 2	32	94.33	2 57	15.91 10	27	97.86	53 07	17.37 2	31	2.01	50 56	17.62 2	21	5.27	51 45
14.74 13	52	91.73	2 35	18.35 1	36	94.55	53 17	16.04 10	27	97.86	52 10	18.04 1	33	2.10	0 05	18.07 2	23	5.39	59 30
18.36 2	53	91.73	55 20	18.42 1	36	94.58	0 53	16.12 9	28	97.92	56 43	17.90 1	34	2.18	1 14	17.81 3	23	5.40	51 17
14.53 13	53	91.76	58 38	17.90 2	37	94.60	59 34	14.16 12	33	98.23	55 57	18.14 2	34	2.19	3 41	17.27 3	26	5.59	56 37
16.42 8	54	91.80	51 17	17.72 3	39	94.77	57 43	18.57 1	33	98.24	55 23	16.88 3	34	2.22	52 42	15.72 10	27	5.60	3 40
17.51 3	53	91.83	4 39	17.10 3	40	94.78	53 04	17.86 3	35	98.36	51 37	17.59 3	36	2.30	2 47	18.11 1	27	5.63	56 19
16.41 9	54	91.86	1 20	16.56 6	41	94.83	53 16	17.60 3	35	98.37	50 48	17.62 3	36	2.30	2 25	17.73 3	28	5.72	59 41
17.56 3	54	91.87	0 15	17.52 3	41	94.92	3 55	17.43 3	35	98.42	50 01	13.16 13	36	2.34	56 33	14.95 13	28	5.75	56 32
14.27 12	55	91.97	1 12	16.69 5	41	94.94	0 15	17.76 3	36	98.43	4 02	16.61 3	35	2.36	52 42	17.57 3	28	5.75	50 30
17.90 2	56	91.97	58 30	16.61 6	43	94.98	53 26	14.83 11	37	98.48	2 10	17.66 2	38	2.51	51 52	15.15 12	30	5.81	3 28
16.57 5	57	91.97	52 37	16.92 5	43	95.07	2 25	16.98 3	38	98.59	56 21	18.20 1	38	2.52	53 31	17.75 3	33	6.00	4 32
17.49 3	56	91.97	59 01	16.69 5	44	95.07	56 03	16.56 3	39	98.64	56 26	18.04 1	39	2.56	53 44				
17.32 3	56	92.02	3 01	18.02 3	44	95.08	0 14	8.45w 8	39	98.65	58 13	16.03 9	40	2.61	54 44				
17.55 3	58	92.04	53 37	18.03 3	45	95.09	52 29	16.64 8	39	98.65	52 54	17.67 3	41	2.64	56 14				
15.40 11	58	92.06	50 42	15.83 9	44	95.10	3 43	17.94 3	40	98.72	59 29	16.85 5	41	2.66	59 14				
18.35 1	58	92.11	57 27	17.13 3	46	95.22	50 23	17.27 3	42	98.84	54 07	16.96 5	42	2.72	58 48				
17.33 3	59	92.13	56 31	16.25 9	47	95.23	52 03	16.71 6	43	98.89	50 57	15.47 10	42	2.73	2 22				
17.45 3	60	92.18	54 16	18.27 1	49	95.40	59 01	17.95 3	43	98.91	4 06	18.42 1	44	2.83	1 24				
17.69 3	61	92.31	1 53	17.93 3	51	95.52	53 16	18.07 2	44	98.95	59 12	17.56 2	43	2.83	53 14				
16.95 3	61	92.32	4 03	16.69 5	54	95.69	58 00	17.78 2	46	99.07	59 02	16.74 3	44	2.86	55 37				
13.16 13	63	92.38	57 17	14.47 11	54	95.72	59 13	17.62 3	47	99.14	51 57	13.62 12	46	2.95	3 00				
17.41 3	64	92.48	3 19	12.81 13	56	95.79	52 06	17.95 3	47	99.16	53 52	16.08 10	45	2.97	53 33				
15.87 10	65	92.56	4 31	17.37 3	59	95.98	50 30	17.05 3	48	99.18	54 54	17.65 3	50	3.19	3 40				
15.35 11	65	92.56	3 23	17.53 3	58	96.02	58 42	18.19 3	48	99.21	4 27	15.62 8	51	3.29	58 58				
15.15 12	66	92.59	56 16	17.46 3	60	96.08	0 16	14.16 11	48	99.22	2 41	15.36 11	51	3.31	55 07				
16.83 5	69	92.81	58 18	17.13 3	60	96.09	57 53	16.98 3	49	99.31	53 49	17.84 2	51	3.32	3 19				
17.39 3	70	92.84	52 07	18.01 2	60	96.10	0 49	16.72 5	52	99.52	1 13	17.77 3	51	3.33	52 47				
16.61 5	71	92.88	56 49	18.50 1	60	96.12	58 54	17.91 3	53	99.56	59 27	18.05 2	57	3.66	4 53				
14.82 13	72	92.94	52 57	17.60 3	61	96.18	0 46	16.28 6	54	99.60	4 34	16.50 6	57	3.72	51 07				
15.28 8	73	93.00	51 47	18.20 1	61	96.21	57 43	18.57 1	54	99.64	58 49	16.81 6	58	3.77	53 37				
18.11 1	72	93.04	0 55	17.28 3	63	96.30	56 55	17.07 3	55	99.70	4 47	13.69 12	59	3.80	59 32				
17.79 3	74	93.07	54 39	14.94 12	64	96.37	55 31	17.83 2	56	99.74	59 22	17.72 3	60	3.88	51 24				
16.67 3	75	93.13	51 41	15.40 9	65	96.39	57 58	18.42 1	57	99.84	2 02	15.85 10	61	3.96	54 09				
17.72 2	75	93.13	52 08	15.58 10	65	96.44	51 49	17.72 3	62	0.11	1 44	17.00 3	62	4.07	52 17				
16.44 9	75	93.18	0 16	18.42 1	65	96.45	54 30	17.78 2	65	0.29	56 17	17.64 3	64	4.11	3 20				
17.18 3	76	93.25	52 51	18.35 1	65	96.47	4 44	18.00 3	66	0.38	52 55	16.18 9	64	4.11	3 50				
17.14 3	76	93.26	1 00	17.41 3	66	96.54	0 11	17.09 3	66	0.39	53 16	13.05 13	63	4.15	53 45				
18.11 1	76	93.27	58 17	16.75 8	68	96.58	58 16	17.75 2	66	0.39	59 35	18.27 1	66	4.23	1 12				
17.55w 2	77	93.3	54 48	15.87 10	68	96.62	57 25	16.39 9	68	0.54	4 36	17.00 3	65	4.27	54 48				
17.25 3	77	93.34	3 05	15.51 10	68	96.64	54 49	17.81 3	68	0.54	1 37	15.16 10	67	4.29	3 45				
16.74 3	78	93.38	3 13	17.24 3	68	96.67	4 27	18.50 1	71	0.68	1 24	12.55 15	66	4.32	59 11				
17.65 3	79	93.40	52 10	17.26 3	71	96.81	58 02	18.11 1	76	0.98	4 13	17.69 3	67	4.34	56 24				
15.97 10	78	93.41	59 50	17.02 3	71	96.82	54 22	17.46 3	75	1.01	51 27	17.81 3	68	4.36	2 53				
16.96 3	79	93.44	50 08	18.04 1	73	96.97	1 45	18.27 1	76	1.03	50 40	10.62w 11	67	4.36	53 43				
17.57 3	80	93.51	56 29	15.88 10	74	97.05	4 44	16.49 6	76	1.04	0 20	17.15 3	70	4.49	0 38				
18.16 3	80	93.55	2 29	16.04 10	74	97.05	4 15	15.85 9	78	1.22	51 01	17.49 3	69	4.51	56 29				
14.74 13	81	93.62	0 52	17.83 2	75	97.07	57 33	18.27 1	81	1.39	50 34	17.57 3	69	4.51	59 35				
16.52 8	82	93.68	1 49	18.24 3	76	97.11	54 23	14.59 12	83	1.48	57 23	18.35 1	69	4.51	59 54				
16.57 6	83	93.68	53 28	16.88 7	79	97.35	54 41	16.50 5	84	1.56	55 33	13.76 10	69	4.51	54 28				
16.13 10	83	93.72	58 28	15.97 10	79	97.37	56 28	17.37 2	85	1.58	50 43	17.71 3	69	4.52	56 21				
16.61 6	83	93.73	2 08	18.21 2	81	97.51	56 10	18.35 1	85	1.62	52 25	17.11 3	71	4.64	54 22				
15.02 13	86	93.89	56 16	17.83 2	81	97.52	56 51	17.87 3	85	1.63	59 09	17.48 3	72	4.69	58 02				
15.78 10	86	93.91	50 54	17.29 3	82	97.54	1 19	16.60 3	85	1.64	58 08	17.19 3	72	4.70	59 26				
17.96 3	87	93.95	58 26	18.35 1	84	97.63	58 17	17.48 3	86	1.68	53 48	17.57 3	75	4.83	0 36				

25 prec. + 186^{s}, + 3′ 57″

1s—60s					61s—120s					121s—165s				
Mag.		α 4m	x	y+60′ y	Mag.		α 6m	x	y+60′ y	Mag.		α 8m	x	y+60′ y
		s	′	′			s	′	′			s	′	′
15.06	10	49	87.6	57.0	16.82	2	43	95.0	48.8	16.46	3	36	2.3	7.5
14.11	12	54	87.9	57.3	15.33	9	44	95.1	6.6	17.37	2	40	2.6	49.4
17.23	2	60	88.3	58.4	16.15	8	47	95.2	49.6	16.87	2	40	2.6	5.8
15.68	8	61	88.4	57.8	15.73	8	48	95.4	6.9	15.09	8	41	2.6	8.2
16.01	8	63	88.5	57.8	16.53	4	49	95.4	7.2	17.08	2	44	2.9	49.0
17.85	2	65	88.6	55.6	17.61	2	57	96.0	6.8	17.57	2	46	3.0	5.6
17.15	2	65	88.6	56.4	14.72	11	59	96.1	6.9	17.13	2	48	3.1	7.3
15.69	8	63	88.6	1.8	14.46	9	59	96.1	8.9	17.27	2	48	3.2	48.5
17.26	2	68	88.8	55.8	14.28	11	66	96.4	47.8	16.48	5	58	3.8	48.4
17.72	2	68	88.8	57.0	17.81	2	65	96.4	48.6	12.61	12	68	4.4	5.5
17.81	2	69	88.9	58.4	15.51	9	65	96.4	48.9	17.59	2	69	4.4	6.7
16.95	2	71	89.0	53.6	17.21	2	71	96.8	48.4	16.99	2	70	4.6	48.6
17.30	2	71	89.0	58.2	16.60	6	70	96.8	5.9	16.66	2	79	5.2	48.8
15.90	8	70	89.0	2.2	17.47	2	74	97.0	46.8	17.33	2	93	6.0	5.2
16.05	8	75	89.2	52.1	17.27	2	74	97.0	49.4	15.79	8	95	6.2	57.9
15.26	8	74	89.2	56.8	15.95	8	76	97.2	7.5	15.54	8	97	6.3	54.6
16.73	2	73	89.2	59.2	17.77	2	76	97.2	7.9	16.09	8	98	6.4	54.6
17.63	2	73	89.2	2.7	16.72	2	78	97.3	5.5	17.58	2	99	6.4	55.6
17.87	2	76	89.3	55.1	15.83	8	80	97.4	6.4	16.34	8	101	6.5	4.4
17.50	2	78	89.4	51.9	17.23	2	82	97.5	49.3	16.14	8	102	6.6	3.6
16.08	8	77	89.4	53.4	17.55	2	83	97.6	5.2	17.55	2	104	6.8	53.5
14.70	11	76	89.4	59.4	17.29	2	83	97.6	6.4	16.06	8	106	7.0	51.6
17.87	2	77	89.4	59.5	17.77	2	90	98.0	8.8	17.09	2	107	7.0	52.3
17.53	2	76	89.4	1.0	17.41	2	91	98.1	49.6	16.72	2	110	7.2	57.5
16.39	7	80	89.7	2.6	15.38	8	90	98.1	8.6	15.60	8	112	7.2	1.6
17.41	2	80	89.7	3.0	17.31	2	92	98.2	5.6	16.38	4	112	7.3	51.0
17.61	2	83	89.8	52.0	17.36	2	92	98.2	7.0	14.72	11	112	7.3	53.2
15.12	9	83	89.8	59.7	16.60	2	94	98.3	49.1	17.02	2	112	7.3	57.0
17.27	2	85	89.9	54.2	17.53	2	99	98.6	47.4	16.68	2	115	7.4	56.4
15.29	9	85	89.9	54.8	15.77	8	100	98.7	48.2	16.89	2	117	7.5	5.6
17.00	2	85	90.0	2.2	17.19	2	101	98.8	9.0	15.33	9	118	7.6	2.0
16.87	2	89	90.2	54.2	16.19	8	104	99.0	5.9	17.37	2	118	7.7	54.8
15.38	8	91	90.3	52.3	17.90	2	106	99.1	49.5	16.01	8	121	7.8	4.8
16.03	7	89	90.3	5.2	14.67	10	106	99.1	8.7	17.07	2	124	8.1	54.1
16.65	4	92	90.4	56.0	16.59	4	107	99.2	48.6	15.63	9	127	8.2	56.2
17.67	2	94	90.5	55.2	15.74	8	111	99.4	7.5	15.94	8	129	8.4	52.6
16.05	8	96	90.6	52.4	16.49	4	114	99.6	47.8	17.31	2	131	8.4	59.5
12.91	14	94	90.6	3.3	17.89	2	113	99.6	5.6	17.17	2	130	8.4	3.9
17.19	2	96	90.7	59.6	17.07	2	114	99.6	6.4	15.24	9	132	8.6	55.5
14.03	13	96	90.7	0.9	15.45	9	115	99.7	48.0	15.66	8	133	8.6	0.2
17.61	2	99	90.9	1.7	15.29	9	117	99.8	48.7	17.63	2	134	8.7	56.9
15.75	8	101	91.0	54.2	17.29	2	117	99.8	6.6	14.75	11	141	9.2	54.1
15.72	8	109	91.6	6.6	17.59	2	120	0.0	49.6	14.78	9	148	9.6	58.6
15.09	9	111	91.7	5.6	16.61	4	120	0.0	8.3	14.27	12	154	10.0	57.1
17.28	2	115	91.8	49.8	13.91	12	123	0.2	7.4	15.60	8	154	10.0	57.5
16.71	2	130	92.8	49.8	17.49	2	127	0.4	48.2					
17.59	2	132	93.0	49.6	17.30	2	126	0.4	48.6					
17.27	2	133	93.1	6.9	14.51	11	132	0.8	48.0					
17.53	2	136	93.2	50.0	17.23	2	137	1.1	7.2					
16.78	2	139	93.4	49.6	16.65	4	140	1.3	7.4					
16.44	4	141	93.6	6.9	14.48	11	141	1.4	47.2					
16.31	5	145	93.8	48.2	17.45	2	144	1.6	47.4					
16.23	7	148	94.0	48.7	17.19	2	145	1.6	6.6					
16.29	8	147	94.0	5.1	16.34	7	146	1.7	48.1					
11.26	10	148	94.1	5.2	16.67	2	147	1.8	47.2					
15.56	7	151	94.2	49.4	17.51	2	147	1.8	47.6					
17.67	2	156	94.6	6.4	17.43	2	147	1.8	48.9					
17.87	2	161	94.8	49.2	16.69	7	147	1.8	5.2					
15.47	8	160	94.8	6.0	15.14	9	151	2.0	49.0					
17.17	2	159	94.8	6.9	16.41	5	154	2.2	48.0					

25 prec. + 186s, + 3′ 57″

Area 4. Center for 1900: $8^h\ 4^m + 74° 50′$ (15′ × 15′)

1—20				21—40				41—60				61—80				81—87			
Mag.	α 2^m	x	$y+50'$	Mag.	α 3^m	x	$y+50'$	Mag.	α 4^m	x	$y+50'$	Mag.	α 4^m	x	$y+50'$	Mag.	α 6^m	x	$y+50'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
15 11 7	33	94.29	53 47	16.57w 2	27	97.8	40 48	17.86? 1	15	0.99	43 41	14.08 10	57	3.76	40 25	13.88 10	7	8.32	49 29
15 53 3	36	94.55	53 22	15.66 3	28	97.93	47 00	9.94w11	20	1.29	47 38	17.65 3	57	3.76	48 05	17.72 1	7	8.39	44 12
16.16 3	42	94.86	49 24	16.03 3	28	97.94	52 43	16.59 3	20	1.32	54 16	16.82 3	59	3.86	48 46	16.41 3	11	8.62	47 51
16.81 3	42	94.88	54 40	17.65 3	34	98.30	45 36	16.11 3	20	1.35	48 37	16.96 3	65	4.30	41 55	16.69 3	11	8.64	41 15
15.88 3	43	94.94	41 28	17.56 3	34	98.35	52 32	15.95 3	23	1.50	51 38	14.25 10	68	4.50	42 54	15.80 3	11	8.65	43 28
15.62 3	44	95.01	45 16	17.91 1	37	98.48	46 01	14.92 6	27	1.80	47 51	15.44 5	72	4.73	45 46	15.26 5	15	8.87	49 09
15.45 4	46	95.17	50 54	17.86? 1	39	98.60	50 18	15.18 10	28	1.84	52 42	16.17 3	73	4.76	48 17	13.20 12	16	8.89	49 49
16.65 3	49	95.32	41 34	17.35 3	41	98.73	54 21	16.95 3	28	1.85	42 52	16.51 3	76	4.96	54 52				
16.65 3	50	95.46	54 23	15.72 3	43	98.86	48 58	17.73 3	30	1.94	48 49	15.62 5	77	5.07	48 20				
15.71 3	53	95.53	42 00	16.63 3	57	99.81	40 42	13.93 10	33	2.21	40 48	12.97 12	80	5.28	42 29				
17.44 3	55	95.73	44 52	15.73 3	58	99.91	50 46	17.14 3	34	2.24	51 39	16.42 3	87	5.73	49 16				
14.24 9	56	95.81	47 15	17.86 1	62	0.14	43 26	17.38 3	35	2.27	48 49	14.92 10	89	5.85	41 28				
14.03 9	58	95.94	44 11	17.51 3	64	0.23	41 04	16.92 3	37	2.45	49 10	17.26 3	97	6.28	50 23				
17.13 3	67	96.53	47 34	16.13 3	65	0.28	43 59	14.94 10	42	2.78	41 58	17.82 1	112	7.37	46 23				
15.66 3	68	96.58	45 47	17.48 3	69	0.62	43 21	16.20 3	43	2.78	54 03	15.14 10	112	7.40	44 38				
15.03 9	72	96.86	45 26	17.36 3	71	0.74	47 52	17.28 3	44	2.86	48 35	12.11w13	114	7.46	48 28				
17.86 1	73	96.95	50 49	16.97 3	72	0.82	40 48	14.62 9	44	2.87	45 35	17.44 1	114	7.49	42 27				
16.38 3	77	97.21	52 07	17.44 3	73	0.87	53 59	14.59 9	46	3.04	48 12	17.82 1	115	7.57	46 08				
17.86 1	81	97.39	44 36	17.77 3	74	0.92	48 17	17.13 3	48	3.09	55 00	17.16 3	119	7.84	41 50				
11.39w14	84	97.65	40 50	17.10 3	74	0.94	45 09	16.31 3	56	3.66	42 42	17.82? 1	123	8.07	47 31				

25 prec. + 182^s, − 4′ 19″

Area 4. Supplementary Stars

1s—30s				31s—58s			
Mag.	α 1^m	x	$y+50'$	Mag.	α 4^m	x	$y+50'$
	s	′	′		s	′	′
13.90 6	32	90.3	45.0	16.57 2	38	2.5	39.4
15.20 2	46	91.2	47.5	16.95 2	39	2.6	58.4
16.92 2	44	91.2	51.8	17.37 2	43	2.8	37.6
14.13 8	56	91.9	48.5	16.29 2	55	3.6	55.4
11.40 13	61	92.2	50.6	15.84 2	57	3.8	37.6
17.03 2	62	92.3	54.6	17.05 2	62	4.0	57.0
17.41 2	75	93.1	43.4	14.02 8	66	4.4	36.6
15.19 4	79	93.4	46.6	15.59 2	69	4.5	57.7
16.03 2	81	93.5	47.1	15.63 2	97	6.4	37.6
15.96 2	82	93.6	54.2	17.28 2	99	6.4	57.8
15.86 2	86	93.8	46.9	13.10 10	103	6.8	37.7
17.27 2	87	93.9	44.9	15.51 2	105	6.8	56.9
17.43 2	87	93.9	47.3	11.89 13	137	9.0	41.2
14.55 7	95	94.4	39.0	15.10 4	138	9.1	43.2
15.41 2	101	94.9	57.1	16.17 2	142	9.3	49.6
17.32 2	103	95.0	56.7	17.35 2	147	9.6	51.6
14.71 7	108	95.2	39.2	17.21 2	153	10.0	48.4
17.23 2	138	97.2	39.0	14.82 8	153	10.0	50.8
17.45 2	152	98.2	55.4	15.69 2	157	10.2	54.4
17.29 2	157	98.4	38.4	14.31 8	157	10.3	48.9
14.17 8	158	98.6	58.7	17.39 2	159	10.4	43.4
17.11 2	163	98.9	56.9	15.15 4	159	10.4	45.2
15.43 2	165	99.0	58.1	16.63 2	159	10.4	48.1
15.45 2	172	99.5	39.4	13.49 10	159	10.4	49.8
17.07 2	178	99.9	57.6	15.75 2	161	10.6	42.4
14.32 8	181	0.0	37.7	16.97 2	166	11.0	42.9
17.37 2	189	0.6	37.8	12.58 12	177	11.6	46.6
14.11 9	189	0.6	39.4	16.90 2	187	12.3	46.8
15.75 2	213	2.2	56.6				
15.20 4	216	2.4	39.4				

25 prec. + 182^s, − 4′ 19″

Area 5. Center for 1900: $12^{h}\,28^{m} + 75^\circ\,0'$ $(20' \times 20')$

1—30				31—60				61—90				91—120				121			
Mag.	α 25m	x	y+60′ / y	Mag.	α 27m	x	y+60′ / y	Mag.	α 28m	x	y+60′ / y	Mag.	α 30m	x	y+60′ / y	Mag.	α 30m	x	y+60′
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.61 1	44	91.30	9 57	13.74 11	5	96.46	8 23	16.60 3	39	2.48	0 55	17.87 1	5	8.04	8 00	16.12 1	47	10.88	50 29
15.74 2	53	91.71	53 50	17.12 3	7	96.54	59 11	10.87w14	42	2.73	0 38	17.15 1	5	8.16	51 45				
17.56 1	54	91.78	54 45	17.30 3	9	96.71	9 21	17.15 1	43	2.78	52 01	16.79 3	8	8.35	55 18				
17.17 3	54	91.80	56 56	11.46 16	13	96.93	54 55	15.32 5	49	3.17	53 51	14.27 4	9	8.35	0 06				
16.36 3	55	91.99	8 05	16.35 3	24	97.72	7 08	16.45 3	59	3.76	8 37	17.82? 1	10	8.37	8 18				
17.23 3	56	92.02	2 33	17.77 1	25	97.72	56 20	15.62 3	60	3.94	51 55	16.35 3	11	8.39	8 28				
17.18 3	59	92.13	57 00	16.98 3	27	97.86	59 37	13.64 11	62	3.96	5 23	13.40 12	10	8.46	55 48				
17.04 3	62	92.35	57 13	17.44 3	30	98.04	3 15	17.72 1	68	4.41	55 07	17.25 3	11	8.51	59 21				
17.30 1	67	92.62	51 30	17.56 1	31	98.08	53 22	16.56 3	69	4.47	4 13	17.30 1	11	8.56	51 28				
16.44 3	67	92.68	4 28	14.62 11	30	98.10	8 33	16.85 3	69	4.52	56 35	13.61 7	17	8.84	0 06				
15.19 7	68	92.72	58 45	17.82 1	34	98.29	53 03	17.61 1	70	4.53	3 47	12.63 14	19	8.95	0 50				
17.67 1	68	92.73	57 20	17.56 1	34	98.34	59 11	17.38 3	73	4.76	58 02	17.87 1	22	9.17	3 28				
17.82 1	72	93.01	55 46	18.03 1	35	98.37	1 08	16.60 3	74	4.81	2 18	16.94 1	26	9.36	9 56				
13.17 12	74	93.22	5 39	13.43 11	41	98.80	5 48	16.64 3	76	4.89	6 20	11.75 16	26	9.38	8 28				
17.21 3	76	93.23	58 34	17.46 1	48	99.21	53 33	16.98 3	79	5.08	59 47	16.49 3	26	9.42	5 36				
15.07 8	75	93.25	3 57	15.22 1	48	99.24	50 21	14.35 11	90	5.81	5 24	17.41 1	25	9.45	55 33				
17.77 1	78	93.38	55 14	16.73 1	49	99.27	5 51	15.44 5	92	5.91	6 40	16.33 1	26	9.49	50 46				
17.21 3	79	93.50	1 02	16.39 3	51	99.38	57 00	17.15 1	94	6.08	51 45	14.64 11	26	9.50	56 16				
17.29 3	82	93.66	58 58	17.72 1	55	99.70	51 37	15.16 11	96	6.15	7 42	16.68 1	28	9.65	54 52				
13.16 13	90	94.12	54 10	17.77 1	56	99.75	0 33	17.17 3	98	6.28	10 00	17.26 3	32	9.80	0 30				
16.51 3	93	94.38	6 45	18.03 1	58	99.88	5 57	17.12 3	100	6.45	7 53	16.96 3	36	10.02	6 06				
17.67 1	93	94.44	8 47	14.75 11	58	99.89	56 26	17.37 3	101	6.55	58 16	16.94 3	36	10.03	8 33				
15.82 4	95	94.44	54 30	16.46 3	61	0.03	54 30	16.08 3	104	6.72	6 24	13.91 1	36	10.03	9 12				
17.25 1	96	94.49	53 40	16.99 3	63	0.19	7 28	12.38 15	108	6.99	56 56	17.46 1	36	10.15	55 10				
16.79 1	96	94.50	52 23	**9.27w14**	**68**	**0.51**	**2 35**	17.77 1	109	7.13	51 52	13.04 1	39	10.28	56 43				
16.56 3	94	94.51	6 01	17.82 1	76	1.07	54 04	15.93 3	111	7.19	59 21	17.07 3	43	10.62	59 43				
17.23 3	100	94.87	2 59	17.52 3	77	1.10	3 31	17.30 1	116	7.53	50 53	17.82 1	47	10.70	6 05				
15.68 4	109	95.36	56 55	17.15 1	81	1.36	50 19	16.14 3	122	7.84	8 03	16.68 1	47	10.75	8 56				
17.82 1	112	95.55	54 17	15.75 4	81	1.41	54 49	17.20 1	120	7.85	50 09	16.53 3	46	10.81	59 28				
17.34 3	119	96.07	5 56	16.06 4	88	1.78	59 27	15.03 11	123	7.88	6 47	17.03 3	48	10.83	1 20				

25 prec. + 61s, − 8′ 17″

Area 5. Supplementary Stars

1s—15s			
Mag.	α 25m	x	y+60′ / y
	s	′	′
16.09 2	29	90.2	59.3
17.16 2	33	90.5	59.5
16.63 2	35	90.6	1.6
15.21 3	91	94.3	10.7
17.01 2	91	94.3	10.9
16.75 2	114	95.8	11.4
16.05 2	128	96.7	12.0
16.89 2	179	0.0	12.8
14.98 9	183	0.2	12.0
14.70 3	188	0.5	14.1
16.75 2	201	1.4	13.8
13.96 9	207	1.7	13.1
15.59 2	224	2.8	10.5
16.73 2	264	5.4	10.5
16.71 2	359	11.6	1.8

25 prec. + 61s, − 8′ 17″

16^h Area 6. Center for 1900: 16^h 14^m + 74° 50′ (15′ × 15′) + 74°

1—20				21—40				41—60				61—80				81—91			
Mag.	α 11^m	x	$y+50'$	Mag.	α 12^m	x	$y+50'$	Mag.	α 13^m	x	$y+50'$	Mag.	α 14^m	x	$y+50'$	Mag.	α 15^m	x	$y+50'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.32 1	57	91.95	47 35	18.14 1	42	94.90	45 10	17.06 3	25	97.68	46 42	14.49 10	26	1.71	55 58	18.31 1	3	4.12	57 08
16.72 3	58	92.03	52 47	12.36 17	42	94.94	53 06	17.56 3	25	97.69	57 33	18.06 1	28	1.80	51 35	17.95 2	6	4.26	56 41
16.93 3	60	92.22	52 34	17.01 3	43	94.99	59 18	15.96d 1	32	98.18	58 23	16.19 6	29	1.86	59 27	15.97 8	6	4.29	49 49
14.60 10	65	92.43	49 58	15.94 8	43	95.00	54 09	15.57 9	37	98.52	47 12	17.28 3	31	1.99	58 44	16.76 3	10	4.57	48 53
16.98 3	66	92.51	49 51	17.64 2	45	95.12	46 37	15.94 8	38	98.57	53 33	17.55 3	32	2.08	52 14	17.42 1	11	4.64	55 15
17.49 2	66	92.58	55 45	16.79 3	50	95.46	50 42	17.34 3	41	98.75	51 58	16.07 5	37	2.41	45 32	14.16 12	16	4.88	56 47
17.36 3	73	93.07	55 16	15.47 9	56	95.79	48 37	17.38 2	42	98.83	54 00	15.99 4	37	2.44	46 57	15.02 9	20	5.26	48 48
15.69 7	75	93.22	55 43	14.92 9	56	95.84	50 03	**10.49w 13**	**43**	**98.88**	**54 17**	17.38 2	40	2.56	59 36	17.55 2	24	5.46	55 42
17.05 3	76	93.22	49 17	17.98 1	57	95.87	47 46	17.41 2	47	99.17	48 07	17.04 3	41	2.72	47 01	16.17 6	29	5.77	59 37
17.23 3	83	93.74	59 08	17.42 3	59	95.99	54 38	17.98 1	49	99.32	47 02	13.06 12	42	2.76	48 10	15.59 9	29	5.83	50 31
17.93 2	85	93.85	54 56	18.06 1	60	96.04	47 07	17.34 3	53	99.50	58 24	16.02 8	44	2.88	53 16	18.06 1	31	5.95	54 06
17.55 3	87	93.94	50 11	17.38 2	64	96.36	55 02	16.38 6	56	99.76	52 56	18.48 1	48	3.10	53 19				
14.70 11	88	93.98	52 48	17.58 2	69	96.64	48 02	18.31 1	57	99.79	48 07	16.72 3	48	3.14	47 37				
18.14 1	92	94.25	45 01	17.12 3	72	96.87	45 40	15.25 8	57	99.85	52 47	15.97 5	52	3.43	45 23				
13.12 11	96	94.46	48 35	14.41 12	74	96.99	59 16	16.30 7	60	99.98	52 54	17.17 3	54	3.52	57 31				
16.83 3	95	94.46	55 09	17.21 3	75	97.05	52 15	16.22 7	60	0.00	55 30	14.61 11	54	3.55	53 37				
14.83 8	95	94.47	58 59	15.86 7	77	97.21	59 52	18.31 1	60	0.00	46 40	15.53 9	59	3.92	48 42				
17.25 3	98	94.62	46 48	18.06? 1	82	97.49	48 29	17.18 3	67	0.47	48 12	17.61 1	61	4.00	48 03				
18.14 1	99	94.71	51 52	16.06 8	83	97.59	50 47	15.41 8	69	0.60	58 52	17.43 2	61	4.01	54 08				
18.14 1	99	94.72	45 31	17.42 3	83	97.59	51 44	16.92 3	76	1.05	53 00	16.15 5	63	4.10	47 39				

25 prec. − 34^s, − 3′ 44″

16^h Area 6. Supplementary Stars + 74°, + 75°

1s—30s				31s—49s			
Mag.	α 10^m	x	$\frac{y+50'}{y-10'}$	Mag.	α 14^m	x	$\frac{y+50'}{y-10'}$
	s	′	′		s	′	′
16.92 2	49	87.6	55.3	15.88 5	6	0.4	3.4
14.12 7	54	87.9	54.6	17.14 2	19	1.2	3.6
12.65 13	65	88.6	56.4	15.27 7	19	1.2	4.9
10.83 14	75	89.2	48.6	17.24 2	22	1.4	0.0
16.60 2	89	90.2	50.4	16.90 2	22	1.4	0.6
17.12 2	96	90.6	49.4	15.94 7	25	1.6	5.1
16.77 2	99	90.9	2.1	12.26 14	33	2.1	2.5
17.23 2	105	91.2	50.0	15.42 7	55	3.6	3.2
17.34 2	105	91.2	55.7	16.98 2	76	4.9	3.2
17.08 2	103	91.2	58.7	16.56 2	90	5.8	2.1
15.44 7	130	92.9	0.5	16.94 2	91	5.8	2.4
15.95 7	135	93.2	0.8	15.16 7	93	6.0	1.6
16.96 2	145	93.8	4.4	17.08 2	99	6.4	0.2
16.06 3	150	94.2	2.6	17.02 2	100	6.5	51.9
16.68 2	152	94.3	4.0	17.16 2	102	6.6	56.5
14.04 10	158	94.7	4.6	17.16 2	102	6.7	49.5
12.40 16	172	95.6	2.3	15.24 7	110	7.2	49.5
15.30 7	178	96.0	4.6	16.82 2	112	7.3	50.0
16.65 2	180	96.2	5.0	17.06 2	134	8.7	54.2
15.58 7	186	96.4	43.8				
17.14 2	193	96.9	45.0				
15.84 7	198	97.3	4.3				
15.88 7	214	98.3	5.2				
17.06 2	226	99.1	4.5				
15.88 7	231	99.4	0.8				
16.05 4	232	99.5	3.5				
16.92 2	233	99.6	43.2				
15.98 5	237	99.8	43.2				
15.49 7	240	0.0	5.6				
17.30 2	243	0.2	0.7				

25 prec. − 34^s, − 3′ 44″

Area 7. Center for 1900: $20^h\ 24^m + 75°\ 10'$ (15′ × 15′)

1—60				61—120				121—180				181—231			
Mag.	α 22^m	x	$y+10'$	Mag.	α 23^m	x	$y+10'$	Mag.	α 24^m	x	$y+10'$	Mag.	α 25^m	x	$y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
18.45 1	27	94.02	5 54	16.89 3	30	98.09	11 51	17.10 3	34	2.14	10 57	16.23 4	32	5.87	13 40
17.62 1	30	94.16	4 12	16.52 3	31	98.14	11 31	16.92 3	34	2.15	12 02	18.45 1	31	5.87	2 34
16.40 3	29	94.20	10 56	18.25 1	32	98.18	3 40	18.58? 1	34	2.19	4 27	18.45 1	31	5.92	4 06
18.18? 1	31	94.28	12 27	17.77 1	32	98.21	1 50	18.45 1	34	2.20	0 06	16.57 3	35	6.11	9 37
17.77 1	31	94.31	10 34	16.74 3	32	98.23	10 38	18.18 1	34	2.21	0 10	18.32 1	36	6.11	10 03
18.38 1	36	94.55	4 04	18.38 1	35	98.36	0 06	18.45 1	35	2.23	12 50	15.64 4	36	6.18	3 31
18.12 1	36	94.60	6 10	16.65 3	36	98.47	13 15	17.07 3	36	2.32	7 16	17.07 3	37	6.20	9 40
16.94 3	39	94.76	1 40	16.18 3	39	98.63	13 00	18.45 1	36	2.35	1 01	16.07 4	37	6.22	6 55
16.99 3	39	94.78	8 11	18.45 1	39	98.63	8 07	16.61 3	37	2.37	3 36	17.99 1	36	6.22	4 22
15.52 4	39	94.83	13 52	18.05 1	39	98.64	5 45	17.19 3	37	2.38	3 27	17.33 2	38	6.30	3 24
17.39 2	42	95.01	8 56	18.25? 1	40	98.71	3 36	16.13 4	38	2.45	3 49	17.92 1	38	6.35	3 47
18.12 1	43	95.05	9 04	18.45 1	43	98.91	13 15	18.51 1	39	2.51	2 44	18.25 1	40	6.44	4 43
15.43 4	46	95.22	4 23	15.99 3	43	98.92	14 18	17.14 3	40	2.53	12 15	18.45 1	42	6.48	10 37
15.82 4	47	95.30	3 01	15.13 5	43	98.94	0 11	17.19 3	41	2.60	10 06	16.64 3	41	6.51	2 46
16.97 3	47	95.33	0 00	12.94 12	44	98.98	6 27	15.84 4	41	2.60	13 06	15.63 4	42	6.55	1 39
18.25 1	47	95.34	9 15	18.58 1	45	99.05	10 21	18.45 1	43	2.76	1 55	17.62 1	42	6.55	10 09
16.03 4	48	95.39	11 19	18.63 1	45	99.06	7 12	16.77 3	43	2.76	3 46	14.14 9	42	6.59	0 37
17.17 3	48	95.40	11 28	18.51? 1	45	99.07	3 53	16.34 4	45	2.90	8 00	17.07 3	43	6.60	7 59
15.39 4	48	95.45	10 13	17.92 1	46	99.08	0 36	17.31 2	47	3.02	4 22	18.25 1	43	6.61	7 51
15.41 4	49	95.46	13 41	16.99 3	47	99.15	9 02	16.19 4	47	3.04	1 25	17.92 1	45	6.77	0 48
18.51 1	50	95.49	8 18	17.11 3	48	99.16	4 04	15.83 4	48	3.09	0 58	16.25 4	48	6.93	2 07
15.63 4	49	95.52	12 11	15.95 4	49	99.30	11 04	16.71 4	50	3.16	3 56	17.92 1	49	7.00	6 01
17.12 2	56	95.85	8 54	15.20 6	51	99.41	13 18	18.63 1	50	3.22	8 04	18.12 1	49	7.01	3 27
16.78 3	57	95.95	0 40	18.58 1	52	99.47	9 59	18.45 1	51	3.23	10 54	15.76 4	49	7.01	3 48
18.38 1	58	95.96	9 55	18.38 1	52	99.49	6 46	17.92 1	50	3.25	4 45	18.32 1	50	7.09	0 39
17.92 1	58	96.00	9 34	17.33 2	57	99.79	13 37	17.25 3	52	3.31	11 35	17.85 1	51	7.17	0 08
18.32 1	57	96.00	14 59	17.03 3	58	99.85	1 39	18.58 1	52	3.34	4 18	18.32 1	52	7.17	14 05
18.32 1	58	96.07	12 53	18.63 1	58	99.87	8 49	16.31 4	54	3.44	13 33	16.94 3	52	7.20	0 30
17.36 2	59	96.10	14 19	18.12 1	58	99.92	4 24	16.97 3	60	3.87	3 57	18.45 1	55	7.40	3 38
18.45 1	60	96.22	12 00	18.70 1	59	99.95	7 19	18.51 1	60	3.92	4 36	14.29 9	56	7.40	13 31
13.91 9	62	96.25	4 32	18.58 1	60	99.99	10 35	17.35 2	62	3.93	14 57	18.12 1	56	7.51	4 56
13.22 10	64	96.41	0 26	17.14 3	63	0.19	0 22	16.69 3	62	3.96	9 28	16.37 4	57	7.54	7 02
18.18 1	64	96.42	3 43	16.47 4	65	0.31	14 35	18.32 1	63	3.99	10 49	17.62 1	58	7.58	1 25
18.05 1	65	96.52	10 08	17.85 1	66	0.36	5 27	17.70 1	64	4.13	7 34	17.70 1	58	7.59	7 05
17.92 1	66	96.55	13 44	18.70 1	67	0.43	7 03	16.69 4	64	4.15	9 05	18.45 1	61	7.76	9 46
16.55 3	68	96.71	10 34	17.06 3	67	0.45	13 19	17.35 2	65	4.19	1 11	15.82 4	63	7.97	0 47
14.93 7	70	96.80	6 52	18.32 1	68	0.48	3 29	17.09 3	66	4.20	13 26	16.30 4	65	8.00	13 38
18.38 1	72	96.88	7 16	18.45 1	71	0.70	4 58	17.70 1	68	4.42	4 06	16.53 4	66	8.07	9 57
16.52 4	72	96.89	4 31	18.32 1	72	0.79	8 14	18.25? 1	71	4.52	10 16	15.63 4	65	8.07	3 54
18.45 1	71	96.89	12 53	17.30 2	72	0.80	0 44	18.32? 1	72	4.60	10 32	18.38 1	66	8.11	1 33
15.44 4	72	96.94	12 20	18.38 1	73	0.81	14 48	18.25 1	73	4.68	6 46	17.15 3	68	8.20	11 02
15.90 4	73	97.00	6 14	18.18 1	73	0.84	5 10	18.12 1	74	4.73	11 22	14.71 9	68	8.21	13 46
17.92 1	73	97.01	0 01	13.90 9	73	0.85	1 41	18.12 1	75	4.81	14 00	14.81 7	70	8.40	0 39
18.12 1	73	97.02	13 51	17.77 1	74	0.88	4 24	16.80 4	75	4.85	1 27	17.99 1	72	8.52	2 31
17.06 3	77	97.18	2 48	18.18 1	75	0.93	4 56	15.92 4	76	4.88	3 34	18.25 1	75	8.63	6 44
14.47 9	76	97.21	10 13	15.25 4	78	1.14	2 13	18.45 1	77	4.94	11 37	17.35 2	75	8.72	3 33
17.70 1	77	97.25	12 46	17.30 2	79	1.23	14 21	17.85 1	77	4.96	0 15	18.38 1	76	8.75	4 36
14.65 9	79	97.33	1 43	10.23w 14	80	1.29	7 21	16.63 3	78	5.00	14 18	17.77 1	78	8.79	13 07
18.05 1	78	97.35	7 14	14.54 9	82	1.45	4 27	14.25 9	80	5.09	12 07	16.62 3	78	8.84	10 03
16.03 4	80	97.44	5 55	17.10 3	83	1.47	2 39	18.45 1	80	5.17	2 07	15.97 4	80	8.95	10 33
18.38 1	80	97.45	14 43	15.09 6	83	1.48	2 04	18.18 1	81	5.21	2 48	17.07 3	79	8.96	4 15
18.05 1	81	97.49	3 59	18.70 1	85	1.59	7 13	16.92 3	80	5.21	13 25				
16.71 3	83	97.58	0 18	16.45 4	85	1.60	9 12	14.83 4	81	5.22	3 35				
18.32 1	83	97.58	5 50	16.00 4	86	1.71	9 41	15.33 4	83	5.32	7 53				
15.33 4	83	97.60	1 07	17.33 2	86	1.71	1 51	16.16 4	84	5.42	7 48				
16.55 3	86	97.86	14 51	18.18 1	87	1.76	1 32	16.82 3	84	5.44	3 05				
18.05 1	87	97.87	9 59	18.12 1	87	1.76	1 05	16.26 4	87	5.56	13 39				
17.05 3	89	98.03	13 27	16.97 3	88	1.82	9 15	17.24 3	87	5.57	12 27				
18.05 1	90	98.06	4 28	16.35 4	88	1.85	1 46	16.68 3	88	5.61	13 13				
11.96 13	90	98.09	8 19	16.46 4	91	1.97	8 41	16.62 3	90	5.77	13 20				

25 prec. − 25^s, + 4′ 55″

20^h Area 7. Supplementary Stars + 74°, + 75°

1s—20s

Mag.		α 21^m	x	$\frac{y+70'}{y+10'}$
		s	′	′
16.62	2	29	90.3	8.0
16.48	2	32	90.5	7.9
16.00	2	39	91.0	11.5
16.80	2	52	91.8	5.4
16.22	2	53	91.8	9.4
16.64	2	58	92.2	4.8
16.86	2	62	92.4	12.6
16.14	2	72	93.0	0.1
15.26	2	75	93.2	0.8
16.90	2	74	93.2	1.2
13.59	7	77	93.4	2.4
15.74	2	77	93.4	9.5
16.82	2	79	93.5	5.8
16.92	2	84	93.8	2.1
14.09	7	85	93.9	7.5
16.49	2	96	94.6	58.5
15.56	2	104	95.2	16.8
16.83	2	108	95.4	15.8
16.11	2	126	96.5	57.6
14.63	7	131	96.8	59.6

21s—40s

Mag.		α 23^m	x	$\frac{y+70'}{y+10'}$
		s	′	′
15.51	2	10	96.8	16.3
16.94	2	25	97.8	57.0
15.26	3	26	97.8	58.2
15.74	2	28	98.0	16.8
16.67	2	39	98.6	17.6
15.22	3	49	99.3	58.9
16.60	2	52	99.4	59.4
16.49	2	57	99.8	58.0
16.22	2	58	99.9	59.6
16.00	2	63	0.2	58.9
16.90	2	67	0.4	16.6
15.84	2	69	0.6	59.9
13.49	8	78	1.2	56.2
16.78	2	88	1.8	16.6
14.74	5	92	2.1	56.8
16.66	2	103	2.8	57.6
16.92	2	107	3.0	56.4
14.93	4	108	3.1	57.1
16.36	2	109	3.1	15.4
16.31	2	119	3.8	58.2

41s—60s

Mag.		α 25^m	x	$\frac{y+70'}{y+10'}$
		s	′	′
14.47	7	0	3.8	16.4
15.43	2	8	4.4	56.6
16.62	2	10	4.4	16.2
15.48	2	13	4.6	15.3
16.93	2	13	4.8	57.7
15.02	2	17	5.0	56.6
16.96	2	19	5.1	58.0
15.30	2	22	5.3	57.0
16.85	2	23	5.4	58.8
15.54	2	30	5.7	17.0
16.16	2	38	6.2	15.7
13.70	8	56	7.5	59.6
16.14	2	60	7.8	58.8
16.59	2	85	9.2	9.6
16.30	2	85	9.3	6.9
16.67	2	87	9.4	9.2
11.72	12	89	9.6	5.1
16.30	2	91	9.7	7.5
16.46	2	91	9.7	7.6
15.36	2	96	10.0	6.2

61s—71s

Mag.		α 26^m	x	y+10′
		s	′	′
14.09	7	36	10.0	7.9
14.18	7	38	10.2	0.8
15.46	2	40	10.2	12.6
16.06	2	44	10.6	1.2
16.44	2	51	11.0	2.8
15.07	3	51	11.0	10.4
16.93	2	58	11.4	7.4
16.26	2	57	11.4	8.4
16.46	2	62	11.7	6.8
15.72	2	67	12.0	6.2
15.69	2	72	12.3	9.7

25 prec. – 25^s, + 4′ 55″

0^h Area 8. Center for 1900: 1^h 0^m + 60° 10′ (15′ × 15′) + 60°

1—30

Mag.		α 58^m	x	y+10′
		s	′	′ ″
18.55	1	39.8	90.01	7 33
17.80	3	39.6	90.04	15 03
17.09	1	40.0	90.04	5 12
17.90	1	40.1	90.05	5 47
17.98	1	39.9	90.05	14 21
18.42	1	40.1	90.08	14 44
18.61	1	40.1	90.08	10 48
18.25	3	40.5	90.13	10 36
18.61	1	41.1	90.20	14 06
17.75	3	41.7	90.25	5 42
17.72	3	41.3	90.25	18 13
17.48	3	41.7	90.28	13 45
16.67	8	42.0	90.29	5 25
18.05	1	41.7	90.30	17 54
18.61	1	41.8	90.31	17 02
18.39	3	41.9	90.32	18 16
16.82	5	42.1	90.33	11 43
16.09	8	42.1	90.33	10 24
16.79	6	42.3	90.35	12 51
18.61	1	42.1	90.35	15 39
17.08	5	42.3	90.38	17 26
18.55	1	42.8	90.39	9 09
17.24	3	42.8	90.39	8 29
18.61	1	42.7	90.40	12 25
17.63	3	42.5	90.40	17 39
18.49	1	42.6	90.41	18 43
18.55	1	42.7	90.42	19 57
15.17	12	42.9	90.42	13 31
16.93	5	42.8	90.44	15 18
17.46	4	43.3	90.47	11 33

31—60

Mag.		α 58^m	x	y+10′
		s	′	′ ″
18.05	1	43.3	90.48	14 39
17.23	5	43.6	90.51	14 08
17.90	1	44.0	90.54	7 53
17.53	3	44.0	90.54	8 40
17.48	3	44.1	90.55	6 18
17.64	3	43.9	90.55	14 31
17.72	3	43.9	90.55	13 35
17.06	8	44.3	90.57	9 48
15.33	11	44.1	90.58	14 02
18.55	1	44.0	90.59	19 56
18.42	1	44.6	90.64	13 11
18.42	1	44.5	90.65	17 22
18.55	1	44.6	90.66	17 56
18.55	1	45.0	90.69	11 09
18.19	3	45.1	90.70	11 53
18.55	1	45.5	90.72	7 42
17.14	4	45.5	90.72	8 52
18.55	1	45.5	90.73	7 11
16.62	8	45.3	90.75	18 18
15.08	12	45.8	90.80	16 07
17.68	3	46.0	90.81	12 49
14.55	13	46.1	90.83	13 47
17.28	4	46.3	90.83	9 13
16.74	8	46.1	90.84	15 30
18.61	1	46.3	90.86	18 42
16.29	8	46.5	90.89	17 19
16.58	8	47.1	90.93	7 32
16.05	8	47.0	90.95	15 58
18.55	1	47.2	90.96	11 27
17.90	3	47.3	90.98	12 39

61—90

Mag.		α 58^m	x	y+10′
		s	′	′ ″
18.28	1	47.4	90.99	11 08
12.02	12	47.5	91.00	14 24
17.88	3	47.8	91.03	10 49
18.61	1	47.8	91.03	11 30
17.24	3	48.0	91.04	9 00
17.36	4	47.7	91.04	18 00
18.49	1	48.1	91.05	5 46
18.55	1	48.2	91.06	7 04
17.03	6	48.1	91.09	15 52
17.51	3	48.1	91.09	19 35
18.55	1	48.5	91.10	8 40
17.99	3	48.7	91.12	8 07
18.15	3	48.6	91.12	10 34
18.35	1	48.7	91.13	9 46
17.80	3	48.7	91.13	7 25
17.35	3	48.7	91.16	19 50
18.61	1	49.2	91.22	15 29
17.90	1	49.4	91.22	14 10
17.78	3	49.4	91.22	14 41
17.62	3	49.5	91.23	7 05
14.58	13	49.3	91.24	17 27
13.62	14	49.7	91.25	5 50
17.46	3	49.9	91.27	8 20
18.11	3	49.6	91.27	18 08
18.61	1	49.6	91.28	17 38
18.61	1	50.5	91.35	9 09
17.39	3	50.3	91.36	19 05
13.96	15	50.6	91.37	12 14
18.55	1	50.9	91.41	10 48
18.11	3	50.8	91.42	17 57

91—120

Mag.		α 58^m	x	y+10′
		s	′	′ ″
17.70	3	51.1	91.43	6 06
18.67	1	51.3	91.46	14 14
13.95	9	51.6	91.49	5 31
17.60	3	51.4	91.50	18 48
15.12	10	51.9	91.52	9 07
18.12	1	51.9	91.54	11 54
17.54	3	52.2	91.58	11 44
18.16	3	52.3	91.58	6 23
17.80	3	52.9	91.65	9 38
18.55	1	52.8	91.65	12 19
16.82	6	53.2	91.68	6 14
18.49	1	53.3	91.69	7 59
18.12	1	53.8	91.75	6 03
18.61	1	53.6	91.75	12 48
17.84	3	53.6	91.78	19 36
18.32	3	54.0	91.80	13 41
18.67	1	54.1	91.81	13 59
17.71	3	54.1	91.84	16 32
18.11	3	54.2	91.85	18 32
15.90	8	54.4	91.85	14 48
17.12	2	54.5	91.86	13 34
15.73	10	54.7	91.89	11 41
18.26	3	54.5	91.89	16 50
18.20	1	55.0	91.92	14 18
18.05	1	55.2	91.92	9 38
18.14	2	55.3	91.94	9 07
18.49	1	55.6	91.98	6 13
16.93	8	55.4	91.98	10 06
18.28	1	56.0	92.02	7 38
17.30	4	56.0	92.03	7 40

121—150

Mag.		α 58^m	x	y+10′
		s	′	′ ″
15.38	11	55.8	92.03	10 27
18.55	1	56.1	92.04	6 39
17.68	3	56.2	92.05	9 06
18.20	1	56.2	92.07	14 30
18.05	1	56.5	92.09	9 43
17.95	3	56.4	92.10	12 29
18.61	1	56.7	92.11	8 45
17.72	3	56.8	92.12	6 54
18.38	3	56.6	92.12	12 21
18.37	3	56.6	92.13	13 54
18.12	1	56.6	92.15	15 13
16.90	8	57.4	92.22	10 18
16.30	8	57.6	92.22	5 51
18.28	1	57.6	92.22	5 01
17.93	3	57.6	92.23	8 13
17.30	4	57.4	92.24	17 50
18.05	1	57.8	92.25	8 45
16.76	7	57.7	92.26	13 35
17.46	3	57.9	92.26	7 08
17.98	1	57.9	92.26	8 25
13.45	15	57.9	92.29	10 59
18.55	1	57.8	92.29	19 27
17.23	3	58.1	92.31	13 03
17.11	6	58.2	92.33	13 55
18.05	1	58.8	92.38	8 12
18.67	1	58.5	92.38	15 22
15.29	11	59.4	92.45	9 43
17.09	8	59.3	92.46	11 50
18.61	1	59.6	92.49	11 56
17.33	4	59.4	92.49	16 16

25 prec. + $91^s.6$, + 8′ 5″

151—210				211—270				271—330				331—390				391—450			
Mag.	α 58^{m}	x	$y+10'$	Mag.	α 59^{m}	x	$y+10'$	Mag.	α 59^{m}	x	$y+10'$	Mag.	α 59^{m}	x	$y+10'$	Mag.	α 59^{m}	x	$y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
16.57 8	59.8	92.50	6 05	13.38 11	6.5	93.38	18 26	17.51 3	15.1	94.43	11 33	15.63 11	26.3	95.80	8 21	16.44 8	37.0	97.14	5 04
18.61 1	59.5	92.50	19 21	17.15 6	6.9	93.39	7 28	18.73 1	15.1	94.44	15 17	15.92 10	26.5	95.84	12 31	16.73 7	37.2	97.16	13 14
17.24 4	59.7	92.53	17 10	17.72 3	7.1	93.42	12 42	18.73 1	15.1	94.44	15 39	18.67 1	26.4	95.84	18 17	16.34 8	37.3	97.18	8 00
18.55 1	59.8	92.53	10 12	18.42 1	7.4	93.45	9 14	17.43 3	15.3	94.44	6 22	16.37 5	26.6	95.85	14 02	17.02 7	37.5	97.20	10 12
14.29 13	60.1	92.54	9 59	18.73 1	7.9	93.52	13 42	18.12 1	15.5	94.47	13 03	17.70 3	26 8	95.87	13 33	16.06 9	37.9	97.25	12 37
17.48 3	60.2	92.55	7 41	17.00 8	7.9	93.53	13 29	14.15 12	15.7	94.51	17 52	16.35 8	27.2	95.93	12 33	**8.78w 7**	**37.9**	**97.25**	**14 11**
18.48 3	60.1	92.56	10 31	18.20 1	8.1	93.54	9 28	16.52 8	15.9	94.51	5 22	17.28 5	27.4	95.95	12 41	15.84 9	38.1	97.27	5 39
17.08 6	60.2	92.57	14 53	18.55 1	8.1	93.54	6 20	18.02 3	15.9	94.53	11 21	16.17 9	28.0	96.02	19 33	15.74 9	38.4	97.31	9 41
17.15 3	60.4	92.57	9 44	16.33 6	7.9	93.55	16 48	16.17 8	16.2	94.55	8 38	18.20 1	28.1	96.02	6 13	15.03 11	38.3	97.31	17 47
17.01 8	60.6	92.60	9 13	16.97 6	8.3	93.56	7 43	18.20 1	16.2	94.56	12 02	18.42 1	28.5	96.09	11 57	16.27 8	38.4	97.32	16 07
18.67 1	60.6	92.62	13 43	14.69 11	8.4	93.59	13 14	18.17 3	16.3	94.57	12 44	18.55 1	28.6	96.09	5 34	15.91 9	38.8	97.36	5 57
15.86 9	60.6	92.63	10 01	18.73 1	8.4	93.60	15 49	18.20 1	16.4	94.57	6 22	16.83 7	28.7	96.10	5 57	18.49 1	38.8	97.36	5 08
17.60 3	61.0	92.65	7 33	18.32 3	8.6	93.61	12 12	17.52 3	16.4	94.58	7 59	18.67 1	28.6	96.11	17 27	14.56 10	38.8	97.38	19 11
18.05 1	61.3	92.69	7 52	15.38 11	8.6	93.61	11 54	18.23 3	16.7	94.61	7 45	18.31 2	29.0	96.15	10 53	16.06 8	39.1	97.40	12 38
17.79 3	61.1	92.69	13 33	18.61 1	8.7	93.64	19 28	18.79 1	16.7	94.62	14 41	15.85 8	29.3	96.17	8 14	18.55 2	39.5	97.45	11 02
18.42 1	61.6	92.73	8 46	17.52 3	9.0	93.65	7 04	18.28? 1	16.6	94.63	19 57	16.80 6	29.3	96.18	7 21	17.62 3	39.8	97.49	7 13
17.64 3	61.4	92.74	17 25	17.90 1	8.9	93.66	16 55	16.69 8	16.8	94.65	18 51	17.76 3	29.5	96.20	8 58	14.22 12	40.4	97.56	6 33
18.55 1	62.0	92.77	5 25	17.54 4	9.3	93.70	13 15	15.83 9	17.3	94.69	6 24	18.05 1	29.6	96.21	5 33	16.88 6	40.4	97.56	7 28
17.80 3	61.8	92.78	10 04	18.67 1	9.3	93.70	10 28	18.61 1	17.5	94.71	7 16	16.33 6	29.5	96.21	13 35	18.73 1	40.7	97.61	17 44
18.20 1	61.9	92.79	10 11	17.14 5	9.3	93.71	15 54	14.95 12	17.4	94.73	19 51	16.22 8	29.6	96.24	18 50	16.66 8	41.0	97.64	8 05
16.95 8	62.4	92.85	11 33	17.68 4	9.5	93.72	11 59	18.12 1	17.5	94.74	16 00	18.22 3	30.1	96.28	9 41	18.79 1	41.3	97.68	12 40
16.99 8	62.4	92.85	12 48	18.67 1	9.5	93.72	10 30	18.73 1	17.8	94.76	11 13	18.14 3	30.5	96.34	10 18	17.20 6	41.4	97.69	13 00
17.94 2	62.5	92.87	19 37	17.95 3	9.4	93.73	16 31	18.09 3	18.0	94.79	13 59	18.00 3	30.7	96.36	13 31	17.97 3	41.9	97.75	14 31
18.12 1	62.8	92.91	19 25	16.04 8	9.6	93.73	8 51	18.79 1	18.1	94.80	12 58	17.42 4	30.6	96.36	18 35	17.55 4	41.8	97.75	18 33
14.99 11	62.9	92.91	10 41	16.49 6	9.8	93.75	9 30	17.74 3	18.2	94.80	5 52	18.67 1	30.9	96.38	9 23	17.95 3	42.0	97.76	13 37
17.39 4	63.1	92.91	6 10	16.47 8	9.8	93.75	8 23	18.79 1	18.3	94.83	12 00	16.73 6	31.0	96.39	6 50	17.98 3	42.3	97.80	6 54
16.37 8	62.9	92.92	17 04	18.29 3	9.8	93.76	12 18	17.16 6	18.6	94.86	14 12	17.32 6	31.2	96.42	13 23	17.98 3	42.4	97.81	6 13
17.46 4	63.0	92.93	13 45	18.73 1	9.9	93.78	11 56	15.38 11	18.5	94.86	16 54	18.85 1	31.3	96.44	13 55	18.61 1	42.7	97.85	9 49
16.86 8	63.1	92.94	10 56	18.29 3	9.9	93.79	19 25	17.56 3	19.2	94.93	5 56	17.56 3	31.8	96.49	6 52	17.86 3	42.7	97.85	12 24
15.92 9	63.2	92.95	14 43	18.67 1	10.3	93.83	10 56	17.16 8	20.0	95.03	11 54	18.22 3	31.8	96.50	15 30	18.06 3	42.7	97.86	18 48
18.14 3	63.2	92.96	18 05	14.11 13	10 3	93.84	16 23	18.67 1	20.6	95.09	9 15	18.73 1	31.9	96.51	10 11	10.51w 8	43.0	97.89	7 32
18.44 3	63.4	92.99	17 52	18.29 3	10.7	93.88	11 37	18.11 3	20 4	95.09	15 00	18.79 1	32.0	96.52	12 42	18.35 1	43.4	97.94	18 56
18.08 3	63.5	92.99	14 11	17.75 3	10.8	93.90	18 12	17.47 4	21.0	95.15	10 25	13.92 13	32.0	96.53	10 53	17.56 3	43.6	97.96	19 45
18.67 1	63.7	93.01	10 49	18.46 3	11.0	93.93	18 04	17.98 1	21.3	95.18	6 02	17.98 1	32.1	96.53	6 34	17.17 4	43.9	98.00	12 49
18.61 1	63.7	93.03	18 32	18.73 1	11.6	93.99	13 49	16.73 8	21.4	95.20	14 04	16.89 6	32.6	96.59	5 26	17.61 3	44.2	98.04	12 15
17.80 3	64.1	93.04	6 36	17.68 3	11.6	93.97	9 05	17.50 4	22.1	95.29	12 33	18.73 1	32.6	96.60	12 39	16.79 4	44.2	98.04	6 20
14.47 13	64.2	93.05	9 37	18.61 1	11.6	94.00	19 50	18.73 1	22.3	95.33	17 28	18.85 1	32.6	96.60	13 20	17.63 4	44.2	98.04	17 05
17.76 3	64.0	93.05	13 32	16.99 6	12.1	94.04	9 32	17.92 3	22.4	95.33	12 50	17.42 4	32.8	96.62	15 33	17.92 3	44.5	98.07	18 24
17.05 6	64.2	93.07	14 05	18.20 1	12.1	94.04	6 56	18.79 1	22.5	95.34	14 08	17.49 3	32.9	96.62	6 08	18.51 3	44.9	98.13	17 39
17.31 4	64.4	93.08	6 26	18.49 1	12.2	94.06	12 04	18.36 3	22,7	95.35	9 29	17.23 4	32.9	96.63	8 51	15.76 9	45.1	98.15	6 00
14.00 13	64.4	93.09	13 01	18.73 1	12.4	94.09	13 42	17.30 4	22.7	95.36	11 40	16.27 6	33.1	96.65	6 22	17.13 6	45.3	98.18	8 13
17.76 2	64.2	93.09	19 49	17.34 4	12.8	94.12	9 05	17.58 4	23.0	95.40	13 20	15.72 9	33.1	96.65	6 38	17.42 4	45.9	98.25	13 34
18.12 3	64.2	93.09	19 21	16.60 6	12.8	94.12	5 30	18.73 1	23.2	95.42	14 42	17.90 1	33.3	96.69	19 46	17.00 4	46.0	98.26	12 15
17.72 3	64.8	93.14	10 06	18.39 3	13.0	94.18	16 42	17.90 3	23.1	95.43	16 23	16.44 8	33.7	96.73	6 37	18.61 1	46.7	98.35	8 21
17.59 3	65.1	93.16	5 20	15.86 8	13.2	94.19	13 03	18.20 3	23.3	95.45	15 33	18.85 1	33.7	96.74	14 18	18.06 3	46.7	98.35	16 14
18.09 3	65.3	93.19	7 15	18.35 1	13.3	94.19	7 12	18.55 1	23.5	95.45	6 36	18.55 1	34.0	96.76	5 39	16.04 8	47.1	98.40	19 16
17.66 3	65.3	93.19	9 20	16.85 6	13.6	94.22	8 59	14.82 12	23.5	95.45	5 48	15.30 11	34.2	96.79	7 35	16.45 8	47.4	98.44	13 48
18.26 3	65.2	93.19	13 51	17.70 3	13.6	94.23	6 00	17.82 3	23.5	95.46	12 01	16.83 6	34.5	96.83	9 02	15.49 10	47.7	98.46	7 51
15.30 11	65.4	93.21	14 47	18.61 1	13.7	94.25	10 40	18.79 1	23.6	95.47	14 25	14.52 13	34.7	96.85	5 49	18.17 3	47.7	98.48	17 11
18.67 1	65.3	93.23	15 35	18.01 3	13.9	94.26	8 19	17.62 3	23.7	95.48	5 04	16.46 7	34.8	96.87	14 51	18.73 1	48.0	98.51	13 43
18.55 1	65.9	93.26	6 25	17.53 4	14.2	94.31	10 49	17.66 3	24.2	95.54	6 44	18.42 1	35.2	96.92	19 19	17.50 4	48.3	98.55	16 56
18.25 3	66.0	93.31	19 18	18.73 1	14 4	94.34	13 28	18.44 3	24.6	95.59	9 23	18.48 3	35.2	96.93	10 09	18.55 1	48.5	98.56	5 44
17.16 6	66.1	93.31	14 20	18.61 1	14.5	94.34	7 52	16.54 6	25.0	95.64	6 59	17.48 4	35.4	96.94	9 00	18.67 1	49.0	98.64	18 21
18.67 1	66.3	93.32	11 43	17.90 3	14.6	94.36	10 54	18.61 1	25.3	95.68	6 50	17.48 4	35.8	96.99	9 07	17.29 4	49.3	98.68	19 30
14.63 11	66.3	93.32	14 01	18.43 3	14.5	94.36	19 24	18.12 1	25 3	95.69	12 25	16.15 8	35.9	97.00	5 58	18.28 1	49.3	98.68	10 11
17.02 8	66.1	93.33	15 19	17.63 3	14.8	94.37	6 14	18.05 1	25.6	95.71	6 28	18.20 1	35.9	97.01	19 19	18.61 1	49.3	98.68	7 31
17.77 3	66.4	93.33	8 34	18.73 1	14.7	94.37	11 23	16.86 8	25.8	95.74	9 02	18.61 1	36.2	97.05	19 56	15.72 9	49.8	98.73	6 54
17.90 1	66.5	93.34	6 03	15.15 12	14.9	94.40	10 38	18.20 1	25.7	95.74	10 36	17.45 4	36.2	97.05	18 58	15.47 10	49.7	98.73	17 19
18.55 1	66.5	93.34	6 18	15.11 12	15.0	94.41	14 35	17.30 5	25.9	95.77	16 57	18.85 1	36.4	97.07	13 32	14.62 12	49.7	98.75	17 49
18.09 3	66.6	93.35	7 10	17.45 4	14.9	94.41	16 31	16.76 8	26.2	95.79	5 44	18.42 1	36.9	97.14	18 38	17.98 3	50.2	98.79	10 52

25 prec. + $91^{s}.7$, + 8′ 4″

451—510					511—570					571—630					631—675				
Mag.		α 59^{m}	x	$y+10'$	Mag.		α 0^{m}	x	$y+10'$	Mag.		α 0^{m}	x	$y+10'$	Mag.		α 0^{m}	x	$y+10'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
16.27	8	51.4	98.93	8 41	18.05	1	2.9	0.36	7 38	15.71	7	16.1	2.00	9 38	18.61	1	29.9	3.72	9 47
18.17	3	51.6	98.96	14 33	18.55	1	3.0	0.37	14 29	18.61	1	16.3	2.03	14 13	12.89	14	30.1	3.75	9 36
18.35	1	52.1	99.01	5 30	18.67	1	3.1	0.39	10 39	18.28	1	16.6	2.06	7 33	15.27	12	30.4	3.78	12 51
18.20	1	52.2	99.03	5 35	18.05	1	3.1	0.39	19 19	18.61	1	17.2	2.14	11 13	18.27	3	30.7	3.80	15 28
18.07	3	52.4	99.06	10 58	17.50	3	3.5	0.44	19 51	15.16	10	17.6	2.19	9 31	15.29	12	30.9	3.82	15 11
14.68	13	52.7	99.10	15 55	18.42	1	3.5	0.44	17 30	18.49	1	17.9	2.22	5 01	18.61	1	31.0	3.85	10 54
17.70	3	53.0	99.12	5 33	18.35	1	3.6	0.45	6 38	18.55	1	18.1	2.25	5 47	17.07	6	31.2	3.88	13 27
18.55	1	53.0	99.13	5 18	17.98	1	4.2	0.52	7 27	18.36	3	18.1	2.25	8 40	17.55	3	31.2	3.89	6 52
17.50	4	53.0	99.13	5 58	18.03	3	4.2	0.52	5 06	16.59	8	18.3	2.28	9 57	18.10	3	31.4	3.91	6 59
17.50	4	53.0	99.13	10 49	18.43	3	4.2	0.53	9 53	17.87	3	18.5	2.30	14 49	16.51	6	31.5	3.92	9 15
18.30	3	53.2	99.15	8 40	16.72	8	4.5	0.56	8 09	15.35	10	18.5	2.30	7 51	18.49	1	31.5	3.93	5 52
17.95	3	53.3	99.16	10 26	17.55	4	4.6	0.57	19 08	15.21	11	18.7	2.33	11 07	14.25	13	32.1	3.97	18 06
16.52	6	53.4	99.17	12 54	18.61	1	4.7	0.59	7 50	18.28	1	19.1	2.36	18 30	18.61	1	32.0	3.98	13 50
16.69	8	53.5	99.19	5 34	17.93	3	5.0	0.63	19 04	17.70	3	19.2	2.37	18 37	18.55	1	32.4	4.03	13 29
12.29	15	53.6	99.20	11 36	14.25	15	5.3	0.66	18 41	17.37	4	19.3	2.39	19 58	16.57	8	32.8	4.09	5 09
17.98	3	53.7	99.21	14 34	18.73	1	5.5	0.69	15 40	17.64	3	19.6	2.42	17 14	17.90	1	32.8	4.09	8 27
16.75	6	53.9	99.24	9 30	16.96	4	6.1	0.76	15 18	17.02	8	19.6	2.44	13 40	18.42	1	33.1	4.11	13 17
18.79	1	53.9	99.24	13 12	18.06	3	6.2	0.77	9 43	16.83	6	19.7	2.45	7 30	16.47	8	33.5	4.15	16 55
18.73	1	53.9	99.25	16 46	18.55	1	6.2	0.77	6 49	18.42	1	20.0	2.47	18 19	18.08	3	33.6	4.19	5 47
18.79	1	54.2	99.28	14 41	17.61	3	6.2	0.78	5 27	16.22	9	20.3	2.53	7 51	16.56	8	34.0	4.24	5 16
18.48	3	54.9	99.36	14 49	18.61	1	6.3	0.79	7 38	18.67	1	20.6	2.55	14 38	18.42	1	34.4	4.29	5 29
16.44	8	54.9	99.36	7 32	18.55	1	6.9	0.86	8 44	17.52	3	21.1	2.63	5 03	18.05	1	34.4	4.29	9 47
18.49	1	55.1	99.39	9 10	17.90	1	7.1	0.88	18 44	18.55	1	21.2	2.64	8 05	17.66	3	34.8	4.33	10 39
18.67	1	55.9	99.49	17 18	18.73	1	7.3	0.91	14 09	18.42	1	21.2	2.64	8 26	17.90	1	35.0	4.36	6 58
16.86	6	56.3	99.54	12 12	18.26	3	7.6	0.95	10 13	12.67	16	21.6	2.67	18 53	15.56	10	35.4	4.39	19 16
17.99	3	56.9	99.61	8 34	18.05	1	8.1	1.00	17 43	18.61	1	21.6	2.68	16 19	18.28	1	35.7	4.43	18 11
17.83	3	57.0	99.62	16 20	15.52	11	8.2	1.01	15 59	18.04	3	22.0	2.72	16 23	15.33	10	35.5	4.43	5 27
16.58	8	57.0	99.63	5 15	16.59	8	8.4	1.05	5 54	16.66	8	22.3	2.78	13 32	18.01	3	35.9	4.45	16 49
18.20	1	57.2	99.65	5 59	18.61	1	8.4	1.05	8 43	16.39	8	22.8	2.83	18 29	17.77	3	36.7	4.55	17 40
18.47	3	57.2	99.65	15 17	16.73	8	8.8	1.09	16 36	18.02	3	23.8	2.95	17 22	16.30	8	36.8	4.57	13 09
18.20	1	57.3	99.66	6 30	17.96	3	8.8	1.10	9 54	18.28	1	23.7	2.95	14 26	16.84	6	37.4	4.64	16 21
14.54	13	57.4	99.67	17 16	17.21	4	9.1	1.13	11 50	17.98	1	24.0	2.98	18 53	18.61	1	37.3	4.64	13 29
18.67	1	57.5	99.69	18 26	11.34	13	9.1	1.13	18 25	16.54:	5	24.1	3.00	5 19	15.95	8	37.9	4.71	13 11
18.67	1	57.8	99.72	18 31	18.73	1	9.4	1.16	15 38	18.12	3	24.6	3.05	15 12	18.15	3	38.4	4.76	17 03
18.67	1	57.9	99.74	9 34	16.05	8	9.6	1.19	11 01	13.02	14	24.8	3.07	10 30	15.55	9	38.6	4.79	18 09
18.61	1	58.3	99.79	19 14	18.11	3	9.9	1.22	10 18	16.91	6	25.3	3.14	16 19	18.05	1	38.5	4.79	12 23
16.42	8	58.3	99.79	12 33	16.77	8	10.0	1.24	19 11	16.93	5	25.4	3.15	19 01	18.28	1	38.5	4.80	5 44
14.43	14	58.5	99.81	15 06	16.32	6	10.1	1.26	7 02	18.55	1	25.4	3.16	7 34	18.12	1	38.6	4.81	9 58
16.74	8	58.5	99.81	7 08	18.35	1	10.6	1.31	19 42	16.60	8	25.8	3.20	11 21	18.55	1	39.1	4.85	15 29
17.35	4	58.6	99.82	6 56	17.64	4	10.7	1.32	12 39	15.52	9	25.8	3.20	18 53	17.54	3	39.3	4.90	8 08
14.61	13	58.8	99.85	11 05	18.42	1	11.0	1.36	14 16	16.88	5	25.8	3.20	19 07	15.88	8	39.7	4.93	13 27
18.30	3	58.8	99.85	18 32	16.34	8	10.9	1.36	7 00	16.56	6	25.9	3.22	5 28	17.95	3	39.7	4.93	13 39
18.20	3	58.9	99.86	19 19	17.82	3	11.2	1.39	11 38	18.42	1	26.2	3.26	9 52	17.60	3	39.9	4.96	14 06
18.35	1	59.1	99.89	6 40	11.64w	14	11.2	1.40	7 26	18.05	1	26.3	3.26	13 55	18.49	1	39.8	4.96	6 55
18.38	3	59.4	99.92	14 42	18.61	1	11.7	1.45	18 40	17.81	1	26.5	3.29	14 05	18.35	1	40.3	4.99	19 59
17.84	3	59.5	99.94	5 53	18.61	1	11.9	1.49	8 18	16.71	6	26.7	3.31	13 47					
17.03	8	59.6	99.95	10 33	16.46	8	12.1	1.51	7 33	17.98	1	27.1	3.36	10 57					
18.42	1	59.8	99.97	15 47	17.66	3	12.3	1.53	11 28	15.64	9	27.2	3.38	19 06					
17.09	6	59.9	99.99	10 02	17.81	1	12.6	1.58	7 30	15.54	9	27.8	3.45	14 01					
17.80	3	60.1	0.01	7 28	17.72	3	13.1	1.63	6 18	16.94	6	27.8	3.46	5 19					
16.44	8	60.5	0.06	16 27	17.54	3	13.6	1.69	7 31	18.28	1	27.9	3.46	10 53					
18.67	1	60.8	0.10	9 46	17.61	3	14.0	1.74	15 03	16.53	8	28.0	3.47	11 01					
14.82	10	61.0	0.13	6 15	18.30	3	14.1	1.75	17 12	14.53	14	27.9	3.48	6 43					
17.98	3	61.1	0.14	12 39	14.11	12	14.1	1.75	11 16	18.55	1	28.0	3.49	8 39					
17.54	4	61.3	0.16	10 53	18.05	1	14.8	1.84	14 14	18.49	1	28.0	3.49	5 45					
13.64	14	61.3	0.16	16 22	18.02	3	15.0	1.86	17 35	17.55	3	28.2	3.50	12 29					
17.20	4	61.5	0.19	6 51	17.00	6	15.0	1.86	7 36	17.47	3	28.4	3.52	11 16					
16.90	6	62.6	0.33	15 54	18.49	1	15.1	1.88	5 10	15.56	9	28.5	3.54	11 06					
18.20	1	62.7	0.34	11 33	17.90?	1	15.5	1.93	9 49	17.79	3	29.2	3.61	17 15					
18.47	3	62.7	0.34	10 30	16.91	5	15.6	1.94	7 43	18.57	2	29.4	3.65	13 05					

·25 prec. + $91^{\mathrm{s}}.9$, + 8′ 4″

1*s*—60*s*					61*s*—120*s*					121*s*—180*s*					181*s*—240*s*					241*s*—300*s*				
Mag.		α 58^{m}	x	$y+10'$	Mag.		α 58^{m}	x	$y+10'$	Mag.		α 58^{m}	x	$y+10'$	Mag.		α 58^{m}	x	$y+10'$	Mag.		α 59^{m}	x	$y+10'$
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
17.31	2	7	86.0	13.9	17.31	2	22	87.8	13.2	15.55	9	32	89.1	19.2	14.99	9	59	92.4	21.2	17.86	2	37	97.1	20.8
17.82	2	8	86.1	13.1	18.06	2	22	87.8	13.6	16.34	7	33	89.2	9.6	16.83	5	59	92.5	22.0	16.95	5	37	97.1	22.5
13.51	14	8	86.1	14.2	16.53	7	22	87.8	13.7	17.52	2	33	89.2	10.6	17.31	3	59	92.5	23.0	17.93	2	38	97.3	4.0
15.18	9	8	86.1	16.4	16.57	7	22	87.8	14.9	17.94	2	33	89.2	11.9	15.35	9	61	92.7	22.0	17.45	3	39	97.4	22.6
17.65	2	8	86.2	15.2	18.06	2	22	87.8	15.6	16.47	5	33	89.2	17.0	15.71	7	61	92.7	24.4	17.42	2	43	97.9	22.2
17.43	2	9	86.2	15.6	17.19	3	22	87.8	16.8	17.14	2	33	89.2	18.2	13.74	13	62	92.8	22.4	17.62	2	44	98.0	4.5
17.98	2	10	86.3	11.9	15.95	7	22	87.8	17.4	16.14	7	34	89.3	6.4	16.49	7	62	92.8	22.6	16.65	7	44	98.0	5.0
17.88	2	10	86.3	12.0	18.08	2	23	87.9	8.2	16.90	7	34	89.3	9.5	15.74	7	62	92.8	24.7	16.86	4	44	98.0	22.0
17.55	2	10	86.3	12.5	17.52	2	22	87.9	16.1	16.06	7	34	89.3	14.5	16.60	5	64	93.0	3.9	16.74	5	43	98.0	24.2
17.48	2	10	86.3	15.8	15.92	7	24	88.0	8.0	17.77	2	33	89.3	20.8	17.62	2	63	93.0	22.9	16.98	3	44	98.0	24.8
16.88	5	10	86.3	16.0	17.92	2	23	88.0	17.9	17.21	2	33	89.3	20.9	17.43	2	65	93.2	4.6	17.74	2	45	98.1	21.6
17.28	2	11	86.4	11.6	17.74	2	24	88.1	8.9	16.38	7	35	89.4	11.7	13.48	15	67	93.5	21.6	17.60	2	46	98.2	3.4
15.83	7	11	86.5	15.2	17.78	2	24	88.1	14.8	17.24	2	34	89.4	17.2	15.72	7	67	93.5	23.5	16.69	7	45	98.2	20.6
14.24	10	12	86.6	12.4	15.74	8	24	88.1	15.2	16.23	7	34	89.4	19.6	17.61	2	69	93.6	4.1	17.33	3	45	98.2	20.9
17.42	2	13	86.7	12.4	16.48	7	24	88.1	17.2	15.10	10	34	89.4	20.6	16.65	7	69	93.7	4.2	17.58	2	45	98.2	23.0
16.52	5	13	86.7	16.5	17.70	2	26	88.2	9.6	17.17	3	34	89.4	21.8	17.34	2	70	93.8	3.6	16.67	5	45	98.2	24.3
16.71	7	14	86.8	10.8	14.68	9	25	88.2	12.2	15.73	7	35	89.5	13.0	17.74	2	70	93.8	23.0	17.60	2	46	98.3	3.0
17.38	2	13	86.8	17.1	15.49	9	25	88.2	13.0	15.10	10	35	89.5	17.9	18.03	2	70	93.8	23.1	16.74	7	46	98.3	5.0
15.70	7	13	86.8	17.7	16.68	7	25	88.2	16.2	17.68	2	35	89.5	18.1	12.65	12	70	93.8	24.4	17.58	2	46	98.3	25.5
16.68	7	14	86.9	14.5	17.74	2	25	88.2	17.0	16.67	4	35	89.5	22.4	17.96	2	71	93.9	23.7	17.10	3	47	98.4	25.0
13.12	14	14	86.9	18.9	15.11	10	25	88.2	17.8	15.47	9	36	89.6	7.7	18.06	2	71	93.9	23.9	16.98	3	49	98.6	3.6
17.12	3	15	87.0	11.9	16.75	5	25	88.2	19.8	17.84	2	36	89.6	12.0	17.48	2	72	94.0	4.3	17.74	2	49	98.6	4.5
17.60	2	15	87.0	16.2	17.50	2	26	88.3	9.3	16.65	6	36	89.6	14.8	17.88	2	74	94.2	4.2	17.13	3	49	98.6	23.8
17.42	2	15	87.0	16.5	16.87	4	26	88.3	14.0	17.52	2	36	89.6	17.7	16.38	7	73	94.2	20.4	16.73	5	50	98.8	24.5
16.93	3	15	87.0	17.0	17.48	2	26	88.3	15.4	16.64	5	36	89.6	21.4	17.43	2	75	94.4	3.2	17.82	2	51	98.9	4.4
16.40	7	15	87.0	17.6	16.57	5	26	88.3	17.9	17.11	3	37	89.7	17.2	16.56	7	75	94.4	4.1	16.22	7	51	98.9	22.4
14.92	10	16	87.1	12.1	16.22	7	25	88.3	21.0	16.23	7	37	89.7	20.0	17.72	2	75	94.4	20.7	16.46	7	53	99.1	24.8
16.81	5	16	87.1	12.7	14.08	9	26	88.4	8.2	17.38	2	37	89.7	20.9	18.06	2	75	94.4	23.4	16.53	7	54	99.2	20.2
16.63	6	16	87.1	15.4	16.61	6	27	88.4	10.2	16.85	5	38	89.8	7.2	18.04	2	74	94.4	23.6	16.41	5	54	99.2	23.2
15.41	9	16	87.1	18.5	14.06	12	27	88.4	10.6	14.65	10	38	89.8	8.4	15.15	9	77	94.7	4.8	18.17	2	54	99.3	21.6
15.03	10	17	87.2	10.2	16.87	7	26	88.4	12.4	16.49	7	38	89.8	8.6	16.89	5	79	94.8	3.3	17.74	2	56	99.5	3.5
17.22	3	17	87.2	10.6	13.98	12	26	88.4	14.7	16.72	6	38	89.8	10.0	17.39	3	78	94.8	4.8	16.77	5	56	99.5	21.9
16.64	6	17	87.2	12.7	16.55	7	27	88.4	15.2	16.65	6	38	89.8	11.8	14.37	9	78	94.8	21.0	13.67	13	57	99.6	23.2
15.95	7	17	87.2	19.3	17.67	2	27	88.4	18.8	17.90	2	38	89.8	13.8	15.30	10	79	94.9	22.9	16.58	7	58	99.7	3.8
17.92	2	18	87.3	12.8	16.18	7	27	88.5	14.0	16.37	7	38	89.8	19.9	17.64	2	80	95.0	23.3	16.30	7	58	99.7	20.4
18.08	2	18	87.3	13.8	14.44	10	28	88.6	8.4	15.95	7	38	89.8	21.2	16.88	6	80	95.1	20.9	16.53	7	58	99.7	20.8
16.11	6	18	87.3	17.9	16.09	7	28	88.6	8.8	17.92	2	39	89.9	10.2	16.64	6	80	95.1	21.9	16.52	7	58	99.7	22.0
18.05	2	18	87.3	18.2	17.72	2	28	88.6	12.4	13.36	14	39	89.9	12.2	13.42	15	81	95.2	24.4	17.70	2	58	99.8	3.7
17.84	2	19	87.4	9.0	16.79	7	28	88.6	16.5	17.88	2	39	89.9	13.2	15.47	9	82	95.3	20.1	16.16	7	58	99.8	22.0
16.71	6	18	87.4	13.8	15.68	7	28	88.6	20.4	16.55	7	39	89.9	16.6	14.12	11	83	95.4	21.4	16.77	5	58	99.8	23.9
16.41	7	19	87.4	15.2	16.19	7	29	88.7	15.7	17.77	2	38	89.9	20.0	16.22	7	83	95.4	25.0	11.86	11	59	99.8	25.0
16.67	7	18	87.4	16.6	16.81	5	30	88.8	6.8	17.33	2	38	89.9	21.9	17.03	3	84	95.5	4.2	17.26	2	60	0.0	3.4
17.68	2	20	87.5	8.5	15.63	8	30	88.8	9.5	17.98	2	40	90.0	9.5	16.61	7	84	95.6	3.2	17.30	3	60	0.0	22.2
17.93	2	19	87.5	11.6	16.02	7	30	88.8	11.6	14.49	9	39	90.0	15.2	14.83	9	85	95.6	4.0	17.00	3	61	0.1	3.7
17.72	2	19	87.5	15.8	16.06	7	30	88.8	12.6	17.58	2	41	90.2	22.1	17.72	2	84	95.6	24.2	17.70	2	61	0.1	4.4
16.99	4	20	87.6	12.0	17.41	2	30	88.8	15.2	17.36	2	42	90.4	20.7	17.38	2	86	95.7	3.2	17.60	2	62	0.2	22.2
17.43	2	20	87.6	13.5	17.64	2	29	88.8	21.2	15.35	8	42	90.4	22.4	17.64	2	85	95.7	22.5	17.98	2	62	0.2	23.5
16.57	7	20	87.6	15.8	17.70	2	31	88.9	10.9	17.38	2	44	90.6	21.8	17.52	2	85	95.7	22.7	16.66	4	62	0.2	24.6
16.71	6	20	87.6	16.0	17.77	2	31	88.9	12.3	17.13	3	45	90.7	20.8	18.08	2	86	95.8	21.4	16.36	7	64	0.4	21.0
16.87	5	20	87.6	16.4	17.52	2	30	88.9	16.4	17.96	2	45	90.7	22.2	17.33	2	88	96.1	25.5	16.70	7	64	0.4	21.8
18.30	2	21	87.7	9.6	17.74	2	32	89.0	9.2	17.78	2	47	91.0	4.9	16.62	6	89	96.2	24.2	17.90	2	63	0.4	22.2
16.55	7	21	87.7	10.1	15.03	9	31	89.0	13.5	17.30	2	52	91.5	4.8	17.50	2	89	96.2	25.2	17.60	2	63	0.4	23.0
17.63	2	21	87.7	10.8	16.48	7	32	89.0	13.8	16.56	7	52	91.6	22.0	16.68	4	90	96.3	25.0	16.11	7	64	0.5	23.6
17.76	2	21	87.7	12.4	16.68	6	31	89.0	15.0	14.87	9	53	91.7	23.6	16.74	7	91	96.4	23.2	17.29	3	65	0.6	4.0
17.19	2	21	87.7	15.7	16.42	7	32	89.1	6.8	11.40	12	54	91.9	22.7	11.37	11	91	96.4	24.0	17.38	2	65	0.6	22.7
17.50	2	21	87.7	16.6	17.15	3	32	89.1	7.4	17.62	2	55	92.0	20.4	16.01	7	92	96.5	3.4	16.57	6	66	0.7	23.6
14.35	12	21	87.7	20.0	17.68	2	32	89.1	12.8	15.87	7	55	92.0	24.2	18.27	2	92	96.5	20.5	17.72	2	67	0.9	21.7
16.67	7	22	87.8	8.2	16.87	7	32	89.1	13.2	16.68	7	58	92.3	4.3	16.84	7	92	96.6	5.0	14.36	11	68	1.0	3.9
15.95	7	22	87.8	9.1	15.87	7	32	89.1	15.1	15.83	7	58	92.3	23.9	18.10	2	94	96.8	21.0	17.82	2	68	1.0	4.9
17.80	2	21	87.8	12.2	17.94	2	32	89.1	16.5	16.34	7	59	92.4	21.0	16.67	3	95	96.9	25.5	15.85	7	68	1.0	20.0

25 prec. + $91^{s}.7$, + 8′ 4″

301s—330s					331s—360s					361s—390s					391s—413s				
Mag.		α 0^{m}	x	$y+10'$	Mag.		α 0^{m}	x	$y+10'$	Mag.		α 0^{m}	x	$y+10'$	Mag.		α 0^{m}	x	$y+10'$
		s	′	′			s	′	′			s	′	′			s	′	′
17.52	2	11	1.3	20.9	12.30	15	31	3.8	21.7	17.16	3	49	6.1	18.0	16.04	7	59	7.3	13.8
15.46	8	11	1.3	21.2	16.90	3	32	3.9	22.9	16.64	7	49	6.1	19.2	14.55	11	60	7.5	13.9
17.42	2	11	1.3	21.9	17.10	3	33	4.0	22.2	17.45	2	49	6.2	7.5	17.00	2	60	7.5	14.9
14.82	10	13	1.6	4.9	16.65	5	33	4.1	20.2	17.98	2	49	6.2	8.8	16.24	5	61	7.6	12.9
16.33	7	13	1.6	5.0	15.64	8	37	4.6	20.3	16.37	7	50	6.2	8.9	16.39	7	61	7.6	15.2
16.79	5	13	1.6	23.7	16.48	7	37	4.6	20.6	17.36	2	50	6.2	18.0	16.56	2	61	7.6	15.5
15.50	9	13	1.6	24.1	17.64	2	42	5.2	18.0	17.12	3	50	6.2	19.2	11.87	12	61	7.6	16.0
16.47	7	14	1.7	20.1	17.96	2	42	5.2	20.0	17.60	2	51	6.3	12.0	13.41	16	61	7.6	17.5
16.61	7	14	1.8	3.7	14.67	10	43	5.3	6.2	17.12	2	51	6.3	14.3	15.28	9	62	7.7	11.6
17.22	3	15	1.8	4.6	18.12	2	43	5.3	9.6	16.44	5	51	6.3	14.8	17.62	2	62	7.7	17.4
17.30	2	15	1.8	21.4	14.02	11	43	5.3	20.3	14.58	11	51	6.3	16.8	17.82	2	63	7.8	12.0
16.99	3	15	1.9	24.0	16.21	7	43	5.4	10.5	15.33	9	51	6.3	19.8	17.38	2	63	7.8	14.4
17.52	2	17	2.0	23.2	16.69	5	43	5.4	11.9	16.39	7	52	6.4	10.8	17.98	2	63	7.8	17.4
17.10	3	17	2.2	23.4	17.24	2	44	5.4	12.4	17.80	2	52	6.4	17.6	18.01	2	64	7.9	16.8
17.50	2	19	2.3	21.7	16.46	7	44	5.4	16.1	17.34	2	53	6.6	8.1	12.68	13	64	8.0	13.7
12.46	14	20	2.4	4.4	17.17	3	44	5.4	16.8	15.34	9	54	6.6	12.2	16.50	7	66	8.2	14.6
17.26	3	19	2.4	22.6	16.91	5	45	5.6	7.5	18.12	2	53	6.6	18.0	15.72	7	66	8.2	16.6
17.17	3	20	2.4	24.1	13.49	13	45	5.6	8.1	16.92	3	54	6.7	16.6	17.26	2	66	8.2	17.2
17.25	3	19	2.4	24.4	18.12	2	45	5.6	9.5	16.53	7	55	6.8	11.0	17.96	2	67	8.2	17.3
13.60	14	20	2.5	20.0	17.65	2	45	5.6	9.8	17.52	2	55	6.8	11.8	15.76	7	67	8.3	11.8
15.81	7	21	2.6	20.9	17.70	2	46	5.6	16.6	17.05	3	55	6.8	19.3	17.10	2	67	8.3	13.0
17.45	2	23	2.8	23.5	16.90	5	46	5.7	11.2	17.28	2	56	6.9	18.8	16.06	7	68	8.4	13.4
17.43	2	23	2.8	24.2	17.41	3	47	5.8	12.7	16.48	6	56	7.0	15.8	16.68	4	68	8.5	13.7
16.61	7	23	2.9	20.8	14.13	11	47	5.8	20.5	15.50	8	57	7.1	19.2					
17.45	2	23	2.9	23.0	15.78	7	48	5.9	13.5	17.26	3	58	7.2	10.3					
15.54	8	25	3.2	21.6	17.07	3	48	5.9	15.0	15.78	7	58	7.2	16.5					
16.77	5	26	3.2	23.3	17.80	2	48	6.0	14.6	17.85	2	58	7.2	18.4					
14.48	11	27	3.4	20.3	18.04	2	49	6.1	8.5	17.12	3	58	7.2	18.5					
16.86	5	27	3.4	21.2	17.03	3	49	6.1	14.6	17.72	2	58	7.2	18.6					
17.04	3	31	3.8	21.2	17.11	3	49	6.1	16.0	13.57	16	58	7.2	19.5					

25 prec. + $91^{s}.9$, + 8′ 4″

3^{h} Area 9. Center for 1900: 3^{h} 4^{m} + 60° 20′ (15′ × 15′) + 60°

1—20					21—40					41—60					61—80					81—100				
Mag.		α 2^{m}	x	$y+20'$	Mag.		α 2^{m}	x	$y+20'$	Mag.		α 2^{m}	x	$y+20'$	Mag.		α 2^{m}	x	$y+20'$	Mag.		α 3^{m}	x	$y+20'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
18.28	4	31.8	89.07	15 58	17.91w	3	42	90.3	21 24	18.53	3	48.8	91.18	18 50	16.23	10	56.6	92.14	18 37	18.56	4	6.2	93.31	11 28
17.99	4	32.0	89.10	17 14	15.20	13	41.9	90.35	22 47	18.58	3	49.4	91.22	12 36	17.84	4	57.1	92.19	12 26	18.14	4	6.3	93.33	12 24
17.69	5	32.2	89.15	22 10	16.59	10	42.1	90.37	21 44	18.43	4	49.3	91.24	17 00	16.20	12	57.6	92.29	23 36	17.43	5	7.0	93.45	22 04
15.22	14	33.9	89.29	11 04	18.52	4	42.5	90.40	17 00	16.83	9	50.3	91.34	12 17	18.41	4	58.1	92.32	17 41	17.57	5	7.2	93.47	20 46
18.38	4	33.6	89.29	16 22	18.43	4	42.9	90.42	15 00	17.23	7	50.6	91.37	13 12	18.44	4	58.3	92.34	11 49	17.26	6	7.9	93.55	18 24
16.60	9	33.9	89.33	15 21	17.49	5	43.7	90.53	11 20	18.01	4	50.6	91.38	14 15	18.67	4	58.9	92.41	13 49	17.77	5	8.7	93.64	19 53
15.71	12	35.2	89.46	13 54	18.06	4	44.1	90.58	10 44	17.15	7	50.8	91.45	21 10	17.32	6	59.8	92.53	14 12	18.32	4	9.1	93.69	19 35
18.25	3	35.3	89.48	11 03	17.30	5	44.3	90.60	10 23	17.52	5	51.4	91.48	12 40	18.52	4	60.2	92.59	18 46	18.50	4	10.2	93.83	15 44
17.67	4	35.7	89.55	18 52	18.16	4	45.5	90.79	21 57	18.74	2	51.7	91.54	16 19	18.51	4	60.3	92.60	19 23	18.48	4	11.4	93.97	17 21
17.36	5	36.1	89.57	13 25	16.50	11	45.7	90.79	16 05	16.85	9	52.6	91.65	19 04	18.64	3	61.5	92.74	12 27	17.13	7	12.1	94.06	16 51
18.64	2	36.7	89.68	19 54	16.14	10	46.2	90.85	18 51	16.81	9	52.6	91.67	21 29	18.59	4	61.5	92.74	14 00	18.36	4	12.5	94.12	24 19
17.71	4	37.3	89.73	14 20	18.48	4	46.5	90.87	13 34	17.50	5	52.9	91.70	21 59	17.86	4	61.3	92.75	21 54	16.50	11	12.8	94.15	18 27
16.58	8	37.4	89.74	11 05	17.92	4	46.5	90.89	15 20	17.49	5	53.4	91.73	12 35	17.47	5	62.0	92.83	21 58	18.60	4	13.0	94.18	15 28
18.30	4	37.3	89.75	17 41	18.14	4	47.3	90.99	16 29	17.02	8	53.7	91.79	16 11	18.55	4	62.3	92.85	18 45	18.25	3	13.5	94.23	12 37
18.11	4	37.3	89.75	18 14	18.30	4	47.8	91.03	13 43	17.76	5	54.1	91.85	20 42	16.63	9	62.5	92.88	17 19	18.70	3	13.5	94.24	18 40
18.36	4	37.7	89.83	21 52	16.80	8	48.1	91.09	17 13	16.85	9	54.1	91.85	21 02	15.82	12	62.8	92.92	21 04	17.04	9	13.7	94.28	22 39
18.55	3	38.8	89.91	13 50	16.78	9	48.2	91.12	22 02	17.43	5	55.4	91.97	14 06	16.74	7	64.0	93.06	19 17	18.76	3	13.9	94.29	19 19
18.08	4	40.3	90.13	17 45	18.18	4	48.2	91.13	22 35	16.57	11	55.8	92.02	11 58	16.68	8	64.8	93.14	11 45	18.13	4	14.9	94.43	21 02
17.13	6	40.7	90.18	19 17	17.68	5	48.6	91.13	11 49	18.51	4	55.8	92.03	12 23	17.63	5	64.8	93.17	22 28	16.34	9	15.2	94.44	11 39
13.58	17	41.5	90.27	16 45	15.35	13	48.6	91.13	10 09	17.39	5	56.1	92.09	19 11	18.61	3	65.5	93.25	18 21	18.32	4	15.4	94.47	18 54

25 prec. + $1^{m}18^{s}.8$, + 5′ 49″

101—160

Mag.		α 3^m	x	y+20′
		s	′	′ ″
14.54	15	15.4	94.47	15 24
17.00	8	15.5	94.48	11 23
18.62	1	15.7	94.52	21 50
17.32	5	16.4	94.61	23 13
18.46	4	16.7	94.63	10 16
17.82	4	17.1	94.70	23 23
18.35	4	17.3	94.73	23 47
17.44	5	17.6	94.75	19 00
18.75	2	17.8	94.78	19 03
17.95	4	17.7	94.78	21 46
16.49	11	18.2	94.83	15 30
18.87	3	18.2	94.83	16 00
17.15	7	18.4	94.84	10 09
18.34	4	18.7	94.88	12 57
18.23	3	19.5	94.97	12 30
18.52	4	19.4	94.97	19 14
18.25	3	19.6	95.01	20 24
16.37	11	19.8	95.03	24 14
18.76	4	20.0	95.03	14 34
17.02	9	20.7	95.13	19 50
17.19	5	20.9	95.14	11 01
18.60	4	20.9	95.15	16 50
17.85	4	20.8	95.15	24 16
18.53	4	21.2	95.17	11 31
17.22	5	21.4	95.22	24 06
17.81	5	21.8	95.26	15 21
16.37	12	22.1	95.29	13 39
17.10	10	22.6	95.35	13 03
17.44	7	22.8	95.38	11 47
18.12	4	22.7	95.38	19 11
18.27	4	23.3	95.44	10 54
18.74	4	23.3	95.45	17 10
18.53	4	23.3	95.46	20 27
18.58	4	23.8	95.51	16 04
18.80	2	24.1	95.55	16 56
18.15	4	24.1	95.56	20 32
17.95	4	24.7	95.62	18 41
17.75	4	24.7	95.63	16 15
17.48	5	25.2	95.70	20 30
18.38	4	25.5	95.71	13 50
17.53	4	25.4	95.73	22 49
17.48	5	25.6	95.74	18 27
18.68	4	25.6	95.74	17 42
18.73	3	25.9	95.77	18 51
18.44	4	27.0	95.93	23 09
18.61	2	27.9	96.02	19 49
15.97	12	27.9	96.04	24 58
16.20	9	28.2	96.07	21 53
18.17	4	28.2	96.08	23 03
18.88	2	28.6	96.11	17 31
17.10	5	29.5	96.21	12 58
17.69	4	29.8	96.25	14 08
17.30	5	29.9	96.28	24 03
17.86	4	30.3	96.33	21 31
11.80w	12	30.5	96.34	12 46
14.82	15	30.5	96.35	19 09
18.30	4	31.5	96.47	21 36
17.99	4	31.8	96.50	13 59
18.20	4	32.0	96.52	11 41
7.63w	5	32.4	96.57	15 18

161—220

Mag.		α 3^m	x	y+20′
		s	′	′ ″
18.53	3	32.4	96.58	18 38
17.63	5	32.5	96.59	19 41
16.50	12	32.7	96.61	14 39
17.77	5	32.8	96.63	17 00
18.61	4	33.4	96.68	17 25
15.48	14	34.0	96.78	13 00
18.00	4	34.0	96.79	23 28
15.29	13	34.7	96.86	19 32
18.60	3	34.8	96.87	12 57
18.18	4	35.2	96.92	12 16
18.03	1	35.2	96.92	15 03
17.39	5	35.3	96.94	18 38
18.66	4	35.7	96.99	17 38
17.67	5	36.0	97.02	14 32
18.62	4	36.0	97.03	17 56
17.91	3	36.7	97.11	18 56
18.00	4	37.0	97.14	14 00
15.83	12	37.1	97.16	18 27
16.34	12	37.5	97.21	18 39
18.98	1	37.7	97.23	14 50
17.15	8	38.1	97.29	17 11
17.86	4	38.2	97.30	18 28
16.94	8	38.6	97.34	10 29
17.05	8	39.2	97.43	23 33
18.89	3	40.1	97.54	17 02
17.31	7	40.7	97.60	11 56
17.56	5	40.9	97.63	13 51
18.58	3	40.8	97.63	21 09
17.73	4	40.9	97.64	19 03
16.69	11	41.0	97.65	19 27
17.02	7	41.1	97.65	10 21
16.87	10	41.6	97.73	22 59
18.55	4	41.9	97.75	10 05
15.76	12	42.5	97.83	11 34
18.14	4	42.8	97.88	23 19
18.52	4	43.5	97.95	17 20
18.28	4	44.1	98.02	19 17
15.26	12	44.2	98.04	17 28
16.25	11	45.1	98.15	10 29
18.28	3	45.2	98.17	23 18
17.81	3	45.5	98.21	24 55
17.71	4	45.8	98.24	20 00
18.33	4	46.0	98.28	21 53
18.10	4	46.6	98.34	16 46
18.82	3	46.7	98.35	19 33
18.10	4	48.5	98.58	20 49
18.00	4	49.0	98.64	13 10
18.07	4	49.2	98.66	22 43
17.96	4	49.3	98.68	21 14
15.75	13	49.3	98.68	25 00
18.70	3	49.7	98.72	11 48
17.57	4	49.8	98.74	10 13
18.40	4	50.5	98.82	22 58
17.46	7	50.6	98.84	19 38
16.91	8	50.9	98.87	10 17
18.78	2	51.0	98.89	18 34
18.29	4	51.4	98.94	24 39
18.31	4	51.4	98.94	23 50
15.45	12	51.5	98.95	15 54
18.58	4	52.8	99.11	20 10

221—280

Mag.		α 3^m	x	y+20′
		s	′	′ ″
16.75	8	52.9	99.13	24 52
18.66	4	52.9	99.13	18 17
18.43	1	53.3	99.17	24 41
18.71	4	53.4	99.19	17 22
18.35	4	53.7	99.22	20 23
18.12	4	53.8	99.22	12 07
17.23	7	53.9	99.24	13 17
11.71w	14	54.3	99.29	18 53
13.92	16	54.6	99.34	24 32
16.95	10	54.7	99.34	16 04
18.34	4	54.8	99.35	16 26
16.02	12	54.8	99.36	20 05
13.14	15	55.5	99.44	23 12
17.13	7	55.7	99.46	12 31
17.69	5	55.9	99.49	22 24
15.37	12	56.1	99.51	24 47
15.38	13	56.1	99.51	17 24
18.02	4	56.5	99.56	22 53
16.76	9	56.6	99.57	14 09
18.17	4	56.6	99.58	17 41
17.41	7	57.1	99.64	17 49
16.56	11	57.1	99.64	15 40
18.38	4	57.1	99.64	15 37
17.15	7	57.4	99.68	21 45
17.63	5	57.6	99.70	12 33
16.96	8	57.9	99.74	19 32
17.46	3	57.9	99.74	24 40
18.41	4	58.2	99.78	10 47
17.94	2	58.7	99.84	23 15
17.75	4	58.7	99.84	18 03
14.64	15	58.8	99.85	15 43
18.76	3	59.0	99.87	14 39
17.95	4	59.0	99.88	21 31
17.72	5	59.3	99.91	11 49
18.52	3	60.2	0.03	11 30
16.68	11	60.2	0.03	12 53
17.91	4	60.3	0.04	23 08
17.62	4	60.6	0.08	18 07
17.98	4	61.1	0.14	17 38
18.73	2	61.1	0.14	16 57
18.05	4	61.8	0.22	15 43
16.92	9	62.2	0.28	23 50
17.59	5	62.2	0.28	10 36
17.21	7	62.3	0.29	13 42
17.18	7	63.4	0.43	13 27
13.51	18	63.7	0.46	20 26
18.13	4	63.8	0.48	12 31
18.06	4	65.2	0.65	21 38
18.64	3	66.0	0.74	21 06
15.78	12	66.0	0.74	22 15
17.90	3	66.0	0.74	16 37
17.37	4	66.4	0.79	17 00
17.50	4	66.6	0.83	13 28
16.96	8	67.3	0.91	10 39
18.09	4	67.5	0.92	17 14
16.91	7	67.6	0.94	20 16
18.13	3	67.9	0.98	20 19
14.40	16	67.9	0.98	16 46
18.29	3	68.0	0.99	12 07
18.30	4	68.1	1.00	18 34

281—340

Mag.		α 4^m	x	y+20′
		s	′	′ ″
18.06	4	9.2	1.14	14 54
18.20	3	9.9	1.23	22 59
16.88	11	10.3	1.28	14 27
17.46	5	10.7	1.32	17 56
15.47	12	10.9	1.35	16 24
18.53	4	11.1	1.37	15 48
18.43	4	11.3	1.40	22 41
18.11	4	11.5	1.42	23 40
13.35	16	11.6	1.44	22 55
18.02	4	12.4	1.54	12 33
17.25	5	12.6	1.56	24 10
10.22w	8	13.4	1.66	10 30
17.58	5	13.4	1.66	13 58
16.17	11	13.6	1.69	17 29
17.59	4	14.1	1.75	23 56
17.61	5	14.2	1.76	16 20
18.42	4	14.3	1.77	16 02
16.83	11	15.4	1.91	17 16
17.99	4	15.4	1.91	17 07
17.86	4	15.6	1.94	22 28
15.47	12	16.2	2.01	24 51
17.98	4	16.4	2.04	20 36
15.49	13	17.1	2.13	12 53
16.71	5	17.3	2.15	12 56
17.58	5	18.1	2.25	10 52
16.32	12	18.8	2.32	18 43
18.39	4	18.9	2.35	12 20
18.26	4	19.1	2.36	21 07
16.56	11	19.1	2.38	12 59
15.69	12	19.6	2.42	15 41
18.16	3	20.3	2.52	14 25
17.68	4	20.4	2.53	15 30
18.05	4	20.5	2.54	20 11
16.82	8	20.8	2.58	23 27
15.98	12	20.8	2.59	11 45
17.24	5	21.3	2.64	17 10
17.68	4	21.3	2.64	24 05
18.33	4	21.3	2.65	13 32
18.52	4	21.7	2.69	17 45
18.36	4	21.9	2.72	12 01
13.51	16	22.2	2.76	11 57
13.35	18	22.3	2.78	10 27
18.44	4	22.5	2.79	19 55
18.24	4	23.5	2.92	12 26
17.41	5	23.6	2.93	11 17
16.84	10	23.7	2.94	20 43
18.40	3	24.2	3.00	11 20
17.66	3	24.4	3.03	11 42
16.44	9	24.7	3.06	10 17
18.47	2	24.9	3.09	16 05
18.53	3	25.6	3.18	19 27
18.28	4	25.9	3.21	23 20
17.87	4	26.0	3.23	23 42
15.61	12	26.1	3.24	16 13
17.25	7	26.4	3.27	14 19
17.84	4	26.4	3.28	24 08
15.85	12	26.6	3.30	12 53
17.94	4	26.7	3.31	11 01
18.50	4	27.6	3.43	17 50
16.48	11	28.0	3.48	16 18

341—348

Mag.		α 4^m	x	y+20
		s	′	′ ″
17.48	4	28.4	3.52	15 59
15.19	14	28.5	3.53	18 12
16.73	11	28.7	3.56	16 17
16.40	12	29.4	3.64	16 54
17.33	5	29.7	3.67	15 21
18.14	4	30.9	3.82	19 26
17.27	5	31.4	3.89	15 49
17.82	4	31.8	3.94	21 30

25 prec. + 119°.0, + 5′ 48″

1s—60s				
Mag.		α 2^m	x	$y+20'$
		s	′	′
17.93	3	1	85.3	18.0
18.47	2	4	85.6	12.8
15.44	10	4	85.6	15.2
18.37	2	5	85.7	13.1
17.86	3	5	85.7	18.2
18.07	3	6	85.8	12.6
12.29	10	5	85.8	17.1
18.06	3	7	85.9	11.7
16.56	8	6	85.9	12.6
16.84	7	7	86.0	17.4
18.45	2	7	86.0	18.8
17.43	3	7	86.0	19.0
18.05	3	9	86.2	16.8
14.19	14	10	86.4	20.0
17.00	7	11	86.5	14.4
17.94	3	11	86.5	19.3
16.88	6	13	86.6	10.8
17.84	3	13	86.7	16.0
17.71	4	14	86.8	21.2
18.50	2	15	87.0	13.8
17.58	4	15	87.0	19.9
16.38	8	16	87.1	13.5
16.55	7	17	87.2	9.4
17.81	3	17	87.2	14.0
18.31	3	17	87.2	18.3
16.49	10	17	87.3	17.8
16.91	7	19	87.4	12.4
17.95	3	19	87.4	16.6
18.16	3	18	87.4	21.4
16.76	6	20	87.6	13.0
10.42	8	21	87.7	9.2
16.25	10	22	87.8	10.7
17.58	3	22	87.8	12.2
17.47	4	22	87.8	12.4
17.57	4	22	87.8	14.2
16.56	8	22	87.8	21.6
18.25	3	22	87.8	22.2
18.23	3	23	87.9	13.5
17.99	2	24	88.1	12.0
17.99	3	25	88.2	13.4
15.25	10	25	88.2	14.0
18.26	2	24	88.2	15.8
18.38	3	24	88.2	19.4
18.17	3	25	88.2	21.8
16.37	8	26	88.3	15.7
17.36	3	26	88.4	15.4
18.04	3	29	88.6	8.8
18.06	2	28	88.6	10.3
18.33	3	27	88.6	20.8
18.55	2	29	88.7	10.2
16.56	8	29	88.7	15.3
15.69	8	31	88.9	12.6
18.45	3	31	88.9	15.0
18.51	2	32	89.0	9.9
16.18	8	36	89.5	6.6
16.73	7	37	89.6	7.3
18.26	3	47	90.9	8.2
16.66	7	48	91.0	5.7
16.74	8	51	91.4	6.0
13.61	13	52	91.6	8.9

61s—120s				
Mag.		α 2^m	x	$y+20'$
		s	′	′
18.29	3	54	91.8	7.9
15.04	11	58	92.4	25.6
14.49	13	61	92.6	6.4
10.58	8	61	92.6	9.0
18.69	2	60	92.6	9.6
18.28	3	64	93.0	5.8
15.47	10	65	93.1	5.6
18.15	3	65	93.2	7.5
16.42	8	65	93.2	8.6
17.26	6	65	93.2	9.8
16.08	10	68	93.5	6.3
18.17	2	68	93.5	8.8
17.67	4	72	94.0	7.0
18.23	3	72	94.0	8.2
13.53	14	72	94.0	8.6
14.75	12	74	94.3	25.6
17.51	4	75	94.4	8.8
18.22	3	79	94.8	6.4
18.41	3	78	94.8	8.0
18.07	3	79	94.9	4.9
16.57	9	80	95.0	25.9
13.10	11	79	95.0	26.8
16.95	7	82	95.3	26.1
18.18	3	83	95.4	4.9
17.22	6	85	95.6	10.0
18.51	2	86	95.8	7.0
17.27	4	86	95.8	26.2
18.24	3	87	95.9	9.8
16.33	8	88	96.0	4.4
16.25	8	87	96.0	7.6
18.42	3	89	96.2	8.9
16.19	10	89	96.2	25.6
18.49	2	89	96.2	26.1
15.74	10	91	96.4	8.4
18.14	3	94	96.8	5.2
18.45	3	96	97.0	7.9
18.29	3	96	97.0	9.2
15.06	11	96	97.1	25.9
16.27	6	97	97.2	8.6
18.79	2	99	97.4	9.5
18.59	2	100	97.6	9.6
18.04	3	102	97.8	5.5
18.10	2	103	97.9	5.5
18.05	3	104	98.0	6.1
18.22	2	104	98.0	6.3
16.67	7	105	98.1	9.1
12.51	12	108	98.4	9.8
15.79	6	107	98.4	9.9
18.23	3	108	98.5	9.3
17.62	3	109	98.6	8.5
16.86	7	110	98.8	5.3
17.99	3	110	98.8	5.5
18.16	3	111	98.9	25.0
17.37	4	111	99.0	25.5
17.31	4	113	99.1	25.2
15.82	10	113	99.2	9.4
16.73	7	114	99.3	7.9
16.35	8	119	99.9	4.8
18.28	3	120	0.0	10.0
17.11	5	121	0.2	4.9

121s—180s				
Mag.		α 4^m	x	$y+20'$
		s	′	′
15.56	10	4	0.6	5.8
17.96	2	5	0.6	6.3
17.79	2	4	0.6	6.4
17.66	3	5	0.6	25.4
17.77	4	6	0.8	5.2
17.89	3	6	0.8	6.2
18.57	2	7	0.9	8.9
18.08	3	8	1.0	6.0
16.82	8	8	1.0	9.9
17.43	4	11	1.4	9.3
12.63	12	12	1.5	6.2
17.26	4	15	1.9	9.6
17.99	3	18	2.2	9.2
14.14	14	18	2.2	25.3
18.37	2	22	2.7	8.2
17.43	2	23	2.8	25.2
14.61	12	24	3.0	8.0
16.26	10	25	3.1	6.4
17.94	3	26	3.2	8.0
15.74	10	26	3.2	9.4
17.92	2	27	3.4	7.8
18.38	2	27	3.4	8.2
18.47	2	32	4.0	8.6
18.43	3	32	4.0	10.1
17.17	6	33	4.0	12.2
17.50	4	32	4.0	14.9
17.33	3	32	4.0	15.6
18.57	2	32	4.0	19.8
18.43	2	33	4.1	8.4
18.58	2	33	4.1	19.0
17.10	6	33	4.2	9.9
18.10	3	34	4.2	11.6
13.52	14	34	4.2	19.0
18.27	3	34	4.2	21.6
18.04	3	34	4.2	22.6
18.46	2	34	4.2	22.9
18.01	3	35	4.3	11.6
18.18	3	35	4.3	13.2
16.59	10	35	4.3	13.3
16.70	8	35	4.4	11.4
16.61	8	35	4.4	14.8
16.64	7	35	4.4	15.3
18.48	3	36	4.4	16.9
17.42	3	36	4.5	17.1
17.11	7	37	4.6	9.8
18.06	3	37	4.6	11.4
14.28	14	37	4.6	16.6
17.93	2	37	4.6	18.0
18.34	3	37	4.6	18.5
18.32	2	38	4.7	14.9
11.73	14	38	4.7	17.8
17.62	3	38	4.7	18.2
16.93	4	38	4.7	22.2
17.01	6	39	4.8	9.0
16.14	10	39	4.8	10.0
18.16	3	39	4.8	20.4
16.99	6	39	4.8	23.3
17.40	3	40	4.9	14.8
17.80	3	40	4.9	20.0
18.32	3	40	4.9	22.2

181s—222s				
Mag.		α 4^m	x	$y+20'$
		s	′	′
16.28	10	41	5.0	9.4
18.55	2	42	5.2	10.2
18.13	2	42	5.2	11.7
13.63	14	42	5.2	13.6
18.39	2	42	5.2	22.0
18.17	3	43	5.3	21.4
17.42	4	43	5.3	23.0
18.27	3	44	5.4	14.4
18.47	2	44	5.5	11.3
15.56	11	44	5.5	14.1
18.19	3	45	5.6	11.4
16.54	8	45	5.6	12.4
17.91	2	45	5.6	15.6
18.06	3	46	5.7	16.2
17.89	3	46	5.7	17.7
18.11	3	47	5.8	13.1
18.59	2	47	5.8	17.7
18.32	3	47	5.9	11.6
18.49	2	48	5.9	12.9
15.38	10	48	5.9	18.1
14.30	13	48	5.9	19.9
17.18	4	48	5.9	20.8
18.33	2	48	6.0	15.6
18.52	2	48	6.0	16.8
17.18	4	48	6.0	18.8
18.17	2	49	6.1	18.0
17.72	3	49	6.2	9.0
17.30	3	50	6.2	18.9
18.35	2	51	6.3	9.9
17.95	3	51	6.3	10.0
15.94	10	54	6.6	11.6
17.94	3	54	6.6	13.2
17.36	4	54	6.6	16.1
18.30	3	53	6.6	16.2
16.81	7	54	6.7	10.4
17.83	3	54	6.7	14.2
17.72	3	55	6.8	14.5
17.74	3	55	6.8	20.2
11.08	8	58	7.2	19.0
18.06	3	60	7.5	13.4
17.25	4	61	7.6	12.0
15.93	8	62	7.7	12.9

25 prec. + $118^{s}.8$, + 5′ 49″

Area 10. Center for 1900: $5^h\ 8^m + 60° 10'$ (15′ × 15′)

1—60				61—120				121—180				181—223			
Mag.	α 6^m	x	y+10′	Mag.	α 7^m	x	y+10′	Mag.	α 7^m	x	y+10′	Mag.	α 8^m	x	y+10′
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
15.41 9	39.8	90.04	13 23	16.89 8	16.1	94.55	13 43	17.66d 1	42.3	97.80	7 58	12.82 15	19.4	2.41	11 11
16.75 8	40.3	90.05	1 05	17.99w 2	17	94.6	14 00	17.32 8	43.4	97.94	8 31	17.98 3	19.5	2.42	11 41
17.94w 2	40	90.1	13 48	17.14 6	16.8	94.62	9 46	17.31 5	43.4	97.94	12 30	17.88 3	19.5	2.43	11 50
14.49 11	40.4	90.11	11 41	17.30 4	17.1	94.68	13 15	17.42 3	44.1	98.02	13 00	17.95 3	19.8	2.46	13 10
17.33 3	40.8	90.11	1 47	17.15 4	17.4	94.69	3 00	17.31 6	44.5	98.07	11 52	14.93 11	19.9	2.47	12 41
17.76 3	41.1	90.17	7 37	17.96w 2	18	94.7	1 12	8.89w 8	44.5	98.07	9 19	15.61 9	20.7	2.57	11 41
18.00w 2	41	90.2	14 48	16.21 7	17.6	94.73	6 35	17.19 4	44.6	98.07	2 09	16.74 8	20.6	2.58	1 46
16.66 8	42.2	90.29	1 32	18.53 2	18.0	94.78	9 21	17.81 3	45.8	98.23	2 09	18.24 2	20.8	2.59	8 43
16.89 6	42.3	90.35	13 22	17.27 3	18.2	94.80	7 00	16.32 8	46.6	98.33	5 40	18.02 3	22.2	2.78	2 10
17.28 1	42.8	90.36	0 01	15.64 10	18.6	94.84	3 58	16.80 5	48.0	98.51	14 39	17.40 4	22.4	2.79	7 59
17.74w 2	44	90.6	14 36	14.77 13	18.6	94.84	3 44	17.03 6	49.5	98.70	14 30	17.98 3	22.7	2.82	5 57
14.96 12	44.7	90.62	7 42	16.74 8	18.8	94.86	2 01	16.78 8	50.1	98.76	4 15	18.15 3	22.7	2.84	3 05
17.68 3	44.5	90.62	14 16	17.96w 2	20	95.0	3 24	18.23 3	51.2	98.90	8 42	14.84 13	24.0	3.00	3 27
17.86 3	45.6	90.76	11 50	15.79 8	20.1	95.03	5 04	17.98w 2	52	99.0	2 36	16.54 7	25.6	3.17	12 27
17.44 3	47.6	90.99	7 01	11.30 10	20.2	95.06	14 39	14.96 13	52.6	99.07	1 25	17.18 3	25.9	3.23	8 31
17.79 3	47.7	91.02	14 37	18.28 3	20.3	95.07	10 51	16.83 6	53.9	99.24	3 46	18.26 3	26.3	3.29	3 04
17.77 3	48.5	91.07	2 48	17.76 3	20.8	95.10	3 17	17.62 5	54.6	99.33	8 42	17.11 6	26.6	3.33	4 55
17.20 4	48.4	91.10	10 07	16.97 8	21.4	95.19	6 03	17.69 3	55.0	99.38	8 29	15.79 10	27.1	3.38	7 31
16.31 8	49.0	91.16	6 31	17.23 6	22.2	95.27	2 28	16.57 8	55.2	99.40	2 31	17.11 6	27.4	3.40	13 59
17.39 3	49.8	91.24	2 55	17.31 6	22.5	95.31	4 19	17.41 4	56.5	99.56	8 56	15.60 10	27.3	3.41	2 37
15.80 11	49.9	91.27	9 40	17.37 4	22.4	95.31	6 50	17.01 4	57.4	99.67	0 12	17.46 3	27.6	3.42	14 59
17.88w 2	50	91.3	3 00	16.71 7	22.6	95.34	5 31	16.33 8	57.8	99.72	2 41	16.46 7	27.6	3.42	11 28
15.22 11	50.6	91.37	12 30	16.91 7	23.1	95.41	11 06	16.82 7	59.0	99.88	9 59	16.95 6	27.4	3.42	1 20
13.40 14	52.1	91.56	12 26	16.39 8	24.8	95.60	0 55	17.24 5	60.0	99.99	14 44	17.57 3	29.2	3.63	14 08
17.10 6	52.3	91.57	5 05	17.80 3	25.0	95.65	12 06	16.01 10	61.4	0.18	10 17	17.44 3	29.9	3.73	6 10
16.46 8	52.6	91.62	14 29	16.69 7	25.4	95.68	3 38	17.41 3	61.8	0.22	13 45	16.86 6	30.4	3.77	12 12
17.70 3	52.8	91.63	7 58	17.24 6	25.4	95.69	5 20	17.88 2	62.5	0.31	3 13	17.69 3	30.7	3.83	7 21
17.26 3	53.0	91.66	6 27	18.18 3	26.0	95.77	10 58	17.84 3	63.1	0.39	2 40	17.60 3	31.2	3.88	13 33
14.79 10	54.9	91.89	6 49	17.06 6	27.8	95.97	0 02	17.33 6	63.4	0.43	6 25	17.90 2	32.0	3.98	13 01
17.95 3	57.2	92.17	6 59	16.38 8	27.8	95.98	0 31	17.22 6	63.6	0.45	8 26	18.07 3	32.4	4.05	0 57
15.71 10	57.7	92.22	4 36	17.45 6	28.8	96.13	10 28	14.14 14	63.6	0.45	11 49	7.03w 6	32.6	4.08	4 19
14.43 13	58.9	92.41	11 11	17.09 8	30.0	96.27	11 49	16.57 7	63.8	0.48	8 16	17.28d 1	33.9	4.21	12 44
15.85 10	61.6	92.72	5 31	17.34 3	30.5	96.34	13 56	17.97 3	64.0	0.50	1 44	17.83 3	34.0	4.23	13 36
18.25 3	61.4	92.72	11 11	18.07 3	31.1	96.39	2 25	17.61 4	64.2	0.52	8 46	18.24 3	33.9	4.23	6 01
17.05 6	61.5	92.74	14 59	15.52 9	31.1	96.40	7 14	17.14 6	64.6	0.57	5 37	16.70 6	34.8	4.35	0 39
18.29 3	62.0	92.77	5 01	9.78w 12	31.3	96.43	9 05	17.42 5	64.7	0.59	10 46	17.27 5	35.8	4.48	0 25
16.98 6	62.5	92.84	9 21	15.74 10	31.3	96.44	10 44	17.13 6	65.0	0.62	5 00	16.15 9	36.3	4.53	7 50
16.90 8	62.8	92.90	10 47	17.68 3	31.7	96.47	9 35	17.68 3	66.2	0.77	4 56	17.20 4	36.5	4.55	9 19
17.83 3	63.0	92.93	10 04	17.94 3	32.0	96.50	2 57	17.84 3	66.2	0.77	5 31	16.72 6	37.0	4.62	2 26
17.30 6	63.5	92.99	10 37	16.43w 6	32	96.5	8 36	17.69 3	66.6	0.82	10 22	13.38 15	37.8	4.70	13 45
16.19 8	64.4	93.07	7 13	16.98 6	32.8	96.60	4 27	18.30 3	66.7	0.84	8 14	15.17 11	38.7	4.82	8 09
16.47 8	65.2	93.18	7 26	16.95 6	33.4	96.67	0 51	17.31 4	66.8	0.85	12 09	15.45 9	38.9	4.86	4 19
13.35 15	65.4	93.20	5 22	18.14 3	34.2	96.80	13 47	17.32 6	66.9	0.86	5 46	16.98 6	39.9	4.97	9 58
16.45 8	65.9	93.27	13 39	18.21 3	34.4	96.81	9 37	13.62 14	67.8	0.97	13 02				
16.59 8	66.5	93.33	0 34	18.09 1	34.7	96.85	9 07	16.44 8	68.3	1.04	3 19				
18.07 3	67.7	93.47	3 17	17.69 3	35.6	96.98	13 01	15.51 10	69.2	1.15	0 51				
16.12 8	67.6	93.48	6 04	18.00w 2	36	97.0	4 12	15.40 11	69.4	1.17	9 01				
18.09 3	69.7	93.72	2 26	17.47 6	37.3	97.17	8 52	16.93 8	69.5	1.17	12 41				
16.78 6	70.9	93.87	2 15	17.66 3	38.8	97.35	2 29	16.62 8	70.3	1.29	1 01				
16.36 8	70.9	93.88	0 14	18.02 3	39.3	97.41	3 32	17.25 4	70.8	1.35	4 24				
16.67 7	71.3	93.93	2 50	17.08 6	39.4	97.43	0 58	16.67 7	71.1	1.37	14 27				
16.53 8	71.6	93.96	4 16	17.54 3	39.5	97.45	9 28	17.90 3	71.4	1.41	12 19				
17.20 6	72.1	94.03	4 02	16.28 7	39.6	97.46	11 29	18.63 2	71.4	1.43	8 36				
16.97 6	72.1	94.03	1 51	18.29 2	39.7	97.47	12 44	18.09 3	72.6	1.57	0 55				
14.81 11	72.4	94.07	6 12	16.99 7	39.7	97.47	10 16	18.25 3	74.4	1.79	9 10				
17.52 3	73.2	94.19	14 04	18.06 3	39.7	97.48	11 43	17.90 3	75.4	1.93	4 48				
16.65 7	73.4	94.21	10 32	16.39 7	39.7	97.48	9 20	17.24 4	75.9	1.97	5 35				
16.57 8	74.1	94.28	3 01	18.14 3	41.0	97.62	4 41	17.21 6	76.7	2.07	8 53				
15.20 11	75.2	94.41	4 08	12.19w 14	42.3	97.79	2 23	16.08 6	77.9	2.22	14 19				
17.76 3	75.5	94.48	12 37	16.92w 5	42	97.8	2 24	16.78 6	78.1	2.26	1 13				

25 prec. + $133^s.4$, + 1′ 53″

1s—60s					61s—120s					121s—180s					181s—240s					241s—276s				
Mag.		α 6^{m}	x	$y+10'$	Mag.		α 6^{m}	x	$y+70'$ $y+10'$	Mag.		α 7^{m}	x	$y+70'$ $y+10'$	Mag.		α 8^{m}	x	$y+70'$ $y+10'$	Mag.		α 8^{m}	x	$y+10'$
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
17.40	2	15	86.9	7.4	16.42	7	45	90.7	17.0	17.82	2	40	97.5	17.9	15.52	8	13	1.6	15.4	18.15	2	54	6.7	16.6
18.01	2	16	87.0	7.0	18.08	2	45	90.7	17.2	16.43	7	40	97.5	18.9	18.20	2	13	1.6	18.4	18.30	2	55	6.8	11.0
17.88	2	16	87.0	7.2	18.30	2	47	90.9	15.3	16.68	5	40	97.6	58.4	18.39	2	14	1.7	16.8	18.00	2	55	6.8	15.7
16.54	7	17	87.2	9.0	16.90	5	47	90.9	16.4	16.89	5	41	97.6	20.0	18.30	2	15	1.8	17.7	12.14	9	55	6.9	3.0
16.39	7	20	87.5	9.0	17.63	2	47	90.9	16.8	16.68	5	42	97.8	59.2	18.41	2	15	1.9	16.5	15.58	9	55	6.9	6.4
16.78	5	20	87.5	10.0	17.00	5	49	91.2	15.6	16.69	7	43	97.9	15.5	17.11	3	15	1.9	17.4	18.39	2	56	6.9	12.0
14.08	10	20	87.6	14.0	18.02	2	50	91.3	18.1	18.13	2	43	97.9	17.8	16.72	5	15	1.9	18.6	18.15	2	56	7.0	14.9
17.60	2	21	87.7	12.6	17.24	2	51	91.4	15.2	18.15	2	44	98.0	58.7	18.35	2	18	2.2	15.2	17.13	3	57	7.1	15.8
17.97	2	23	87.8	3.6	16.59	7	51	91.5	16.4	18.22	2	44	98.0	59.2	18.33	2	18	2.2	16.6	16.29	7	57	7.2	9.8
14.88	11	22	87.8	6.0	17.90	2	51	91.5	16.8	17.22	5	44	98.0	15.4	18.13	2	21	2.6	18.8	18.28	2	58	7.2	11.1
15.45	7	22	87.8	12.6	17.71	2	55	91.9	18.1	16.67	7	44	98.0	16.1	16.77	5	21	2.6	19.0	18.13	2	58	7.2	12.8
17.90	2	23	87.9	11.2	18.09	2	56	92.1	16.7	18.05	2	44	98.0	17.2	17.50	2	23	2.8	17.7	16.85	5	59	7.3	9.4
17.22	2	25	88.1	5.4	17.52	2	57	92.2	18.3	17.74	2	44	98.0	17.4	16.56	7	23	2.8	19.6	15.01	9	59	7.4	3.3
18.22	2	24	88.1	7.0	17.88	2	59	92.4	0.0	15.36	9	44	98.0	20.5	17.96	2	24	3.0	0.0	16.56	7	61	7.6	7.8
18.06	2	25	88.2	5.2	17.90	2	61	92.7	17.4	18.05	2	45	98.1	59.3	18.11	2	25	3.1	0.0	16.73	5	61	7.6	9.0
17.82	2	26	88.3	3.8	18.06	2	62	92.8	18.2	18.24	2	45	98.1	17.3	18.01	2	26	3.2	19.8	16.97	5	61	7.6	12.8
18.08	2	26	88.3	11.7	15.52	9	64	93.0	16.0	18.08	2	45	98.1	19.0	18.13	2	28	3.4	0.0	18.03	2	61	7.6	13.2
17.78	2	27	88.4	7.3	17.86	2	64	93.1	19.0	17.90	2	45	98.2	16.6	17.11	4	34	4.2	59.9	16.34	7	63	7.8	8.0
18.05	2	27	88.4	8.0	17.70	2	66	93.2	59.0	18.30	2	47	98.4	17.1	17.52	2	34	4.2	18.0	16.81	5	63	7.9	6.0
18.30	2	27	88.4	10.0	17.84	2	70	93.8	59.2	18.16	2	48	98.5	59.6	18.08	2	39	4.8	17.7	15.07	10	64	8.0	6.2
15.00	9	28	88.5	7.1	18.02	2	70	93.8	19.5	17.86	2	48	98.5	59.7	17.35	2	39	4.9	15.2	17.82	2	66	8.2	14.7
16.95	5	28	88.6	9.6	17.92	2	72	94.0	16.8	18.18	2	48	98.6	18.4	17.99	2	41	5.0	6.6	18.13	2	67	8.4	5.3
17.42	2	28	88.6	14.2	18.20	2	72	94.0	19.0	17.98	2	50	98.8	58.3	18.45	2	40	5.0	10.8	17.94	2	67	8.4	8.2
16.66	6	28	88.6	15.8	15.80	8	72	94.1	20.0	17.98	2	50	98.8	18.3	18.08	2	40	5.0	16.6	16.94	2	68	8.5	12.0
17.72	2	29	88.7	4.2	18.31	2	73	94.2	15.6	18.18	2	51	98.9	19.0	17.88	2	40	5.0	17.2	18.11	2	69	8.6	5.1
18.13	2	29	88.7	5.1	15.07	10	74	94.3	16.0	18.00	2	52	99.0	0.0	17.92	2	41	5.2	5.3	17.66	2	69	8.6	7.6
15.84	8	29	88.7	6.4	17.52	2	75	94.4	19.4	18.43	2	52	99.0	15.5	18.04	2	41	5.2	7.1	15.83	8	71	8.8	8.1
16.70	7	29	88.7	7.7	18.13	2	78	94.8	20.2	14.49	10	52	99.0	16.9	15.46	9	42	5.2	14.2	18.13	2	71	8.8	8.5
17.76	2	29	88.7	9.8	18.11	2	79	94.9	19.0	18.10	2	52	99.0	18.6	17.92	2	42	5.2	15.4	17.92	2	71	8.8	8.8
16.74	3	31	88.8	5.8	18.15	2	80	95.0	58.8	17.69	2	54	99.2	17.3	15.43	8	42	5.2	16.6	15.70	6	71	8.8	13.4
17.29	3	30	88.8	9.2	16.70	7	80	95.0	15.0	17.35	2	54	99.2	19.2	17.90	2	42	5.3	2.1	18.08	2	71	8.9	5.3
17.72	2	30	88.8	11.9	18.06	2	80	95.0	19.0	17.05	4	54	99.2	19.3	14.72	10	42	5.3	3.4	16.92	4	71	8.9	8.1
17.99	2	32	89.0	7.6	17.85	2	80	95.0	19.1	18.09	2	56	99.5	59.4	17.76	2	44	5.4	16.8	16.89	3	72	9.0	12.2
18.30	2	32	89.0	8.6	16.55	7	80	95.1	19.2	18.28	2	56	99.5	0.0	16.68	6	44	5.5	9.6	18.06	2	74	9.2	7.8
18.09	2	32	89.0	9.0	18.22	2	81	95.2	15.2	16.89	7	56	99.5	17.3	18.37	2	44	5.5	13.0	13.63	12	77	9.6	10.0
17.74	2	31	89.0	11.9	17.98	2	81	95.2	20.6	16.73	7	57	99.6	17.6	16.64	7	45	5.6	4.2	16.18	5	78	9.7	8.6
17.53	2	32	89.1	8.8	18.43	2	82	95.3	15.8	15.07	8	57	99.6	19.8	16.52	6	45	5.6	9.6					
17.84	2	33	89.2	8.2	16.40	7	84	95.4	59.3	16.41	7	57	99.6	20.7	18.02	2	45	5.6	10.8					
15.48	9	33	89.2	12.2	18.16	2	86	95.8	17.0	15.24	8	58	99.7	17.0	17.82	2	45	5.6	14.0					
16.30	7	36	89.6	12.8	17.11	3	86	95.8	17.2	17.58	2	59	99.9	19.7	18.15	2	45	5.6	16.6					
15.01	10	36	89.6	14.4	17.56	2	86	95.8	19.2	16.61	7	59	99.9	20.1	18.20	2	46	5.7	2.0					
18.08	2	38	89.8	2.0	17.72	2	86	95.8	20.0	16.82	7	60	0.0	18.2	17.58	2	47	5.8	10.6					
18.08	2	38	89.8	3.2	17.01	3	87	95.9	59.6	18.13	2	61	0.1	19.1	17.08	3	47	5.9	5.8					
14.84	11	38	89.8	4.7	15.38	9	88	96.0	17.0	15.70	9	62	0.3	15.6	18.04	2	48	5.9	14.8					
17.68	2	38	89.8	5.8	17.78	2	88	96.0	19.8	17.72	2	62	0.3	16.2	13.70	12	48	6.0	8.3					
17.88	2	38	89.8	6.6	17.72	2	88	96.0	20.6	17.88	2	64	0.4	58.4	18.37	2	48	6.0	12.9					
14.47	12	38	89.8	15.2	17.13	5	89	96.2	15.6	17.61	2	63	0.4	18.1	17.96	2	49	6.1	11.5					
17.83	2	38	89.8	16.0	17.66	2	90	96.3	20.2	12.78	14	65	0.6	15.4	18.13	2	49	6.1	16.6					
15.27	8	39	89.9	2.8	17.13	3	91	96.4	19.0	17.50	2	65	0.6	16.4	17.43	2	49	6.2	1.6					
16.81	5	39	89.9	6.0	17.56	2	91	96.4	20.0	18.29	2	64	0.6	17.6	18.18	2	49	6.2	7.8					
17.94	2	39	89.9	6.8	18.22	2	93	96.7	17.9	18.14	2	66	0.7	15.2	18.22	2	50	6.2	11.5					
18.48	2	39	89.9	9.2	17.82	2	95	96.9	18.0	15.38	7	66	0.7	15.8	15.91	7	50	6.2	12.6					
18.24	2	40	90.0	4.6	16.02	8	96	97.0	17.4	17.38	2	66	0.8	58.3	17.82	2	51	6.3	10.8					
18.26	2	40	90.0	5.8	16.93	5	97	97.1	58.8	18.33	2	66	0.8	17.6	18.22	2	51	6.3	12.0					
18.39	2	40	90.0	7.0	18.39	2	97	97.1	15.9	16.78	5	68	1.0	18.8	18.06	2	51	6.3	17.0					
14.26	10	42	90.4	15.1	17.27	2	97	97.1	16.6	12.74	12	68	1.0	19.0	17.30	4	51	6.4	7.0					
16.52	7	43	90.5	17.0	18.43	2	97	97.1	16.8	17.90	2	69	1.1	59.1	18.08	2	53	6.6	10.7					
14.61	11	43	90.5	17.8	15.64	8	97	97.1	20.9	17.68	2	70	1.3	15.8	18.11	2	53	6.6	14.2					
18.20	2	44	90.6	15.4	18.39	2	97	97.2	16.7	17.99	2	70	1.3	18.0	17.68	2	53	6.6	17.0					
18.20	2	44	90.6	15.6	18.37	2	98	97.2	17.2	17.46	2	71	1.3	18.6	18.13	2	54	6.7	2.0					

25 prec. + 133^{s}.4, + 1′ 53″

Area 11. Center for 1900: $7^{h}\,7^{m} + 60^\circ\,0'$ ($15' \times 15'$)

1—60				
Mag.		α 5^{m}	x	$y+60'$ y
		s	′	′ ″
19.07	1	45.4	90.69	2 47
16.51	9	47.3	90.93	2 01
15.83	9	47.5	90.95	2 42
18.87	1	50.9	91.33	54 28
16.66	9	53.1	91.65	2 02
10.82w	8	55.7	91.95	55 26
17.15	9	57.1	92.12	57 58
16.49	9	57.2	92.14	59 11
16.89	9	57.9	92.21	51 24
17.23	3	58.0	92.26	4 13
15.01	12	59.9	92.48	58 13
17.22	3	60.2	92.54	4 24
14.68	11	61.3	92.65	56 34
18.41	1	61.4	92.66	56 57
19.17	1	61.9	92.76	2 38
18.00	1	62.6	92.80	52 36
19.17	1	62.7	92.85	1 27
17.82	3	63.4	92.90	50 21
17.78	3	64.2	93.00	53 28
17.28	7	64.1	93.00	57 32
18.03	3	64.9	93.10	58 09
17.91	1	65.4	93.15	50 00
18.97	1	66.8	93.34	56 48
17.97	3	67.7	93.47	0 05
18.53	1	68.0	93.49	55 51
17.19	4	68.1	93.50	59 50
17.64	4	68.8	93.58	51 48
15.95	10	69.0	93.60	50 37
17.90	3	69.4	93.67	1 35
19.27	1	69.5	93.68	56 06
17.72	3	70.2	93.76	59 52
18.09	1	70.3	93.80	0 46
18.04	3	71.3	93.90	59 41
18.53	1	71.9	93.98	59 33
16.43	7	72.9	94.13	2 04
18.09	1	74.3	94.26	54 19
16.64	9	76.1	94.53	2 29
13.56	15	77.9	94.72	58 11
19.07	1	78.0	94.74	56 29
16.24	9	78.2	94.79	0 13
19.17	1	78.3	94.80	1 25
19.27	1	78.5	94.83	0 49
18.53	1	78.7	94.83	59 56
18.41	1	79.1	94.88	56 04
18.41	1	79.9	94.97	53 10
17.19	7	80.5	95.06	55 13
18.07	3	81.8	95.23	55 44
17.13	8	82.2	95.27	3 48
18.53	1	82.8	95.35	58 36
15.21	11	83.0	95.37	2 41
17.09	8	83.5	95.42	51 10
19.17	1	84.2	95.53	4 10
17.10	3	85.3	95.66	4 48
16.46	7	86.1	95.75	54 49
16.81	8	87.2	95.89	52 57
18.09	1	87.8	95.96	53 46
16.78	9	87.8	95.96	51 17
19.27	1	89.3	96.15	52 15
17.05	4	90.4	96.30	59 56
13.20	17	90.9	96.36	58 01

61—120				
Mag.		α 6^{m}	x	$y+60'$ y
		s	′	′ ″
19.17	1	31.0	96.38	55 17
14.55	12	31.2	96.40	59 52
16.76	9	31.9	96.49	3 41
13.00	16	33.2	96.65	3 18
15.21	12	34.0	96.74	54 48
16.22	9	34.8	96.85	3 27
14.41	11	35.4	96.93	3 32
17.75	3	35.7	96.95	53 24
15.45	11	37.2	97.15	2 57
18.53	1	37.7	97.20	54 28
19.57	1	38.6	97.33	58 00
17.91	1	38.8	97.35	4 07
19.07	1	39.0	97.36	54 03
16.74	9	39.6	97.45	0 44
18.97	1	42.2	97.78	57 58
15.97	9	42.3	97.79	4 56
18.53	1	43.4	97.92	58 24
18.19	1	43.8	97.97	3 33
18.30	1	44.7	98.09	3 55
8.30w	6	45.6	98.20	56 46
12.29w	14	46.9	98.36	4 00
18.65	1	48.2	98.52	58 48
18.97	1	48.7	98.59	2 18
19.47	1	49.0	98.63	57 24
15.96	10	49.3	98.66	57 52
15.62	10	51.3	98.91	56 36
18.65	1	51.6	98.95	54 14
17.07	8	51.8	98.98	51 32
17.97	3	53.1	99.14	59 44
16.31	9	53.6	99.20	56 30
17.30	7	54.2	99.27	52 54
18.65	1	54.4	99.30	1 09
18.38	2	55.3	99.41	55 46
17.74	3	55.7	99.46	2 15
18.30	1	56.2	99.53	4 17
18.06	3	56.2	99.53	55 37
18.87	1	56.3	99.54	1 45
19.07	1	57.8	99.72	59 47
16.49	9	58.7	99.84	4 21
17.92	3	59.0	99.88	4 42
18.65	1	60.2	0.02	3 30
17.21	4	60.4	0.05	57 15
17.52	6	61.1	0.14	53 17
16.26	9	61.1	0.14	54 19
19.17	1	61.2	0.15	50 33
18.19	1	63.2	0.40	54 38
12.68w	15	63.8	0.48	2 05
15.48	12	63.9	0.49	58 39
15.06	11	64.2	0.53	56 04
16.78	9	64.2	0.53	52 11
18.30	1	64.3	0.54	53 28
17.20	9	64.4	0.55	3 21
19.17	1	64.5	0.56	59 55
16.22	9	65.1	0.64	1 08
16.85	7	65.4	0.68	50 17
18.08	3	65.8	0.73	55 26
15.88	7	65.9	0.74	50 13
17.73	5	66.5	0.81	51 11
14.47	13	67.8	0.97	58 09
18.30	1	68.3	1.04	3 00

121—178				
Mag.		α 7^{m}	x	$y+60'$ y
		s	′	′ ″
19.07	1	8.3	1.04	4 05
16.79	9	8.3	1.04	54 44
19.17	1	8.5	1.06	53 30
19.07	1	9.8	1.23	57 36
19.17	1	10.2	1.27	0 34
18.04	3	11.1	1.39	55 50
18.53	1	11.1	1.39	57 00
15.45	12	13.4	1.69	51 32
15.92	10	13.7	1.71	59 06
15.43	11	13.9	1.74	55 04
15.83	9	15.2	1.90	57 21
17.77	3	15.2	1.90	2 46
18.41	1	15.3	1.93	53 25
19.17	1	16.0	2.01	52 24
16.89	9	16.2	2.03	3 54
16.58	7	16.5	2.06	55 24
15.74	10	16.9	2.13	54 11
19.27	1	17.3	2.16	0 36
16.61	9	17.4	2.17	57 09
19.27	1	17.5	2.20	52 46
16.52	7	17.9	2.25	52 20
19.27	1	18.5	2.31	55 35
19.17	1	18.7	2.34	2 55
19.07	1	18.8	2.35	3 16
17.44	7	20.7	2.59	59 24
17.22	8	20.9	2.61	58 42
16.24	10	23.1	2.89	58 29
16.35	9	23.5	2.94	4 31
18.30	1	25.7	3.21	57 42
18.97	1	27.3	3.41	3 50
18.87	1	27.3	3.42	50 46
17.79	3	28.6	3.59	52 01
17.08	8	29.0	3.62	2 30
19.07	1	29.8	3.74	50 18
15.04	12	29.8	3.74	52 26
16.79	9	31.7	3.98	50 16
19.17	1	32.0	4.00	57 14
16.48	9	33.3	4.16	57 57
17.85	3	33.7	4.21	2 24
16.84	9	34.7	4.34	50 44
17.93	3	34.8	4.36	53 10
17.06	8	35.7	4.48	53 27
17.07	8	37.0	4.62	4 28
17.80	3	37.4	4.67	0 02
18.01	2	37.5	4.70	52 44
19.07	1	37.6	4.71	52 35
19.17	1	37.7	4.72	52 53
16.91	9	38.0	4.76	50 37
14.62	11	38.5	4.81	58 26
19.17	1	39.2	4.90	56 12
15.92	8	39.1	4.90	54 40
15.39	10	39.4	4.92	4 24
18.09	1	40.2	5.04	54 42
16.13	8	40.4	5.06	58 52
16.72	9	40.5	5.09	53 49
16.84	6	41.3	5.17	55 29
13.61	17	42.0	5.24	0 14
15.21	9	43.9	5.50	56 18

1s—60s				
Mag.		α 5^{m}	x	$y+60'$ y
		s	′	′
17.71	2	21	87.6	57.0
13.34	14	22	87.7	58.0
14.03	10	23	87.8	55.8
16.99	6	23	87.9	53.6
17.70	2	23	87.9	57.8
17.73	2	23	87.9	58.9
17.77	2	27	88.4	59.6
17.11	4	27	88.4	0.4
17.69	2	29	88.6	52.8
17.67	2	29	88.6	53.2
15.16	9	29	88.6	0.8
12.35	12	32	89.0	54.4
14.73	9	33	89.1	55.9
14.88	9	34	89.2	58.2
17.55	2	35	89.4	55.4
15.21	10	37	89.6	50.8
15.45	9	38	89.6	51.0
16.90	4	37	89.6	51.3
17.62	2	39	89.9	54.1
15.22	10	39	89.9	2.6
15.02	10	40	90.0	51.7
12.83	11	40	90.0	4.4
17.58	2	41	90.1	50.4
16.13	5	42	90.2	52.7
17.67	2	41	90.2	55.7
16.96	2	42	90.3	4.4
17.79	2	43	90.4	53.2
16.71	5	48	91.0	49.1
17.77	2	51	91.3	50.0
16.83	5	51	91.4	5.2
13.82	10	64	93.0	48.9
16.31	7	68	93.4	47.4
16.85	6	70	93.8	5.6
17.23	2	71	93.9	7.3
17.11	6	72	94.0	48.0
15.43	6	74	94.2	46.9
16.58	7	81	95.2	6.7
16.96	7	86	95.7	49.4
14.09	11	91	96.4	49.2
14.00	9	92	96.5	5.7
15.32	10	94	96.8	47.4
17.85	2	97	97.2	5.0
15.69	7	103	97.9	5.3
15.02	11	107	98.4	47.1
17.49	2	111	98.9	7.8
15.62	8	115	99.4	47.0
17.03	2	121	0.1	7.6
17.26	4	123	0.4	47.5
16.95	2	126	0.8	6.2
16.01	7	128	1.0	7.4
13.41	13	129	1.1	8.1
17.45	4	134	1.8	47.4
16.99	6	135	1.9	47.6
15.80	8	144	3.0	48.4
17.00	6	152	4.0	48.0
15.25	10	153	4.1	49.0
16.80	7	155	4.4	49.8
17.71	2	159	4.9	5.7
16.51	7	168	6.0	56.4
16.51	7	170	6.2	58.5

61s—73s				
Mag.		α 7^{m}	x	$y+60'$ y
		s	′	′
13.78	12	50	6.2	58.8
15.96	7	49	6.2	3.4
14.70	11	51	6.4	51.3
17.00	7	51	6.4	54.5
16.01	7	53	6.7	55.0
12.95	14	55	6.9	54.4
16.28	8	58	7.2	59.4
16.51	7	58	7.3	51.8
16.89	7	61	7.6	56.8
13.65	14	62	7.8	53.2
17.63	2	66	8.3	52.8
11.76	12	72	9.0	59.0
17.08	2	74	9.3	58.2

25 prec. + $132^{s}.1$, − 2′ 24″

Area 12. Center for 1900: $9^{\mathrm{h}}\ 3^{\mathrm{m}} + 59° 40'$ (20′ × 20′)

1—25				26—50				51—75				76—89				1*s*—11*s*			
Mag.	α 1^{m}	x	$y+40'$	Mag.	α 2^{m}	x	$y+40'$	Mag.	α 2^{m}	x	$y+40'$	Mag.	α 3^{m}	x	$y+40'$	Mag.	α 1^{m}	x	$y+40'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
15.08 1	28.9	88.45	32 36	13.58 9	20.6	95.01	30 13	18.52 1	58.2	99.77	44 42	17.69 3	39.6	4.99	42 46	15.45 2	22	87.6	35.8
15.63 4	29.0	88.46	34 19	17.03 3	23.2	95.34	32 50	18.68 1	58.2	99.77	47 19	15.85 4	41.2	5.20	44 13	17.42 2	81	95.0	29.4
14.16 1	29.3	88.59	49 45	17.09 3	24.3	95.47	34 30	18.20 1	58.6	99.83	48 01	16.87 3	41.5	5.26	32 58	17.06 2	105	98.1	30.0
17.39 1	34.6	89.17	30 22	18.44 1	24.1	95.48	41 26	16.65 3	59.8	99.97	32 03	17.45 3	43.8	5.54	35 53	16.57 2	118	99.8	28.4
17.72 1	34.5	89.25	47 58	17.45 3	26.9	95.80	33 38	17.48 3	62.9	0.36	49 18	16.76 3	44.2	5.60	34 12	15.60 2	126	0.7	28.8
15.04 5	38.6	89.69	33 46	17.09 3	28.3	96.01	45 58	18.68 1	63.0	0.37	45 33	14.86 10	45.2	5.71	38 37	17.40 2	129	1.2	29.2
15.14 4	45.5	90.56	32 17	17.08 3	28.9	96.06	31 17	17.89 2	63.4	0.42	44 12	14.47 10	49.4	6.26	33 57	16.85 2	138	2.3	29.0
18.28 1	46.7	90.71	30 57	15.75 4	29.2	96.12	45 03	15.87 4	64.5	0.57	36 07	14.46 10	50.4	6.37	38 13	15.74 2	138	2.3	29.3
16.22 3	46.9	90.79	44 50	15.62 4	29.8	96.18	35 47	18.52 1	65.2	0.65	48 55	17.59 3	51.4	6.48	44 38	16.63 2	185	8.2	43.0
15.29 4	47.5	90.84	38 49	18.76 1	30.8	96.31	44 10	16.60 3	66.6	0.82	45 33	16.20 2	56.5	7.11	48 36	13.84 7	187	8.5	37.5
17.62 3	52.3	91.44	37 50	14.84 10	35.6	96.93	47 03	17.62 3	68.3	1.05	35 32	12.26 1	57.4	7.27	30 20	17.24 2	189	8.7	43.5
17.46 3	54.8	91.77	43 04	16.41 3	37.4	97.14	36 25	15.63 4	68.9	1.12	31 27	16.67 3	57.7	7.27	42 09				
18.60 1	56.1	91.93	39 48	18.68 1	37.2	97.14	45 57	16.92 3	70.9	1.37	48 20	18.44 1	57.9	7.33	37 00				
18.12 1	61.3	92.56	31 54	17.03 3	37.7	97.18	30 36	15.37 5	71.6	1.47	34 33	14.99 7	59.6	7.54	38 24				
14.48 10	61.1	92.58	43 13	18.76 1	38.5	97.29	44 50	12.46w 13	76.8	2.12	34 58								
16.21 4	62.0	92.69	44 06	17.82 3	40.0	97.47	42 02	17.53 3	78.1	2.29	37 35								
15.72 4	64.6	93.04	46 45	15.23 10	40.7	97.56	36 32	14.19 10	84.2	3.06	36 20								
15.80 4	66.1	93.22	46 09	14.75 10	41.6	97.67	42 38	17.59 3	85.4	3.22	30 15								
7.74w 6	68.9	93.52	33 30	16.35 4	43.7	97.94	32 25	14.85 10	90.0	3.77	45 50								
11.59w 13	71.4	93.86	37 57	8.64w 10	43.8	97.95	39 33	18.52 1	91.8	4.00	49 34								
15.61 4	73.5	94.13	36 28	17.80 3	45.5	98.18	46 14	15.84 4	96.0	4.54	43 38								
16.66 3	77.7	94.67	47 00	15.58 4	46.3	98.26	33 45	13.59 12	96.2	4.57	39 41								
17.26 3	77.8	94.68	40 19	18.36 1	47.8	98.45	30 18	17.25 3	97.9	4.77	41 29								
15.61 4	79.3	94.88	49 54	14.92 10	52.6	99.08	47 24	16.87 3	98.0	4.78	47 29								
18.68 1	80.1	94.98	45 42	17.82 3	56.3	99.53	34 24	16.90 3	98.2	4.81	42 56								

25 prec. $+ 116^{\mathrm{s}}.6, - 5' 59''$

11h + 59°

Area 13. Center for 1900: $11^{\mathrm{h}}\ 3^{\mathrm{m}} + 59° 50'$ (20′ × 20′)

1—25				26—50				51—75				76—100				1*s*—8*s*			
Mag.	α 1^{m}	x	$y+50'$	Mag.	α 2^{m}	x	$y+50'$	Mag.	α 3^{m}	x	$y+50'$	Mag.	α 3^{m}	x	$y+50'$	Mag.	α 1^{m}	x	$y+50'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
17.32 1	41.5	90.08	35 51	14.58 11	26.3	95.78	50 04	15.27 10	5.4	0.69	36 22	11.53w 11	39.3	4.92	52 18	15.82 7	33	89.1	48.8
17.38 3	43.1	90.35	50 02	17.43d 1	27.3	95.90	54 14	17.68 3	11.9	1.50	47 07	17.92 2	40.0	5.04	40 54	16.92 2	36	89.4	41.7
14.65 11	47.8	90.90	41 00	16.84 3	30.0	96.22	46 13	17.91? 1	13.6	1.72	38 21	17.86x 1	41.3	5.20	47 46	17.50 2	38	89.6	43.0
17.69 3	52.0	91.42	41 57	17.60x 1	31.1	96.35	44 32	17.97 1	13.9	1.75	41 33	17.60 1	41.2	5.21	36 51	14.96 8	85	95.6	56.2
16.70 3	53.4	91.60	43 49	16.78 3	31.5	96.42	54 31	17.43d 1	15.7	1.98	53 49	17.03 3	42.6	5.37	43 45	15.07 5	87	95.9	55.8
18.02 2	57.1	92.06	41 17	16.47 7	34.7	96.81	49 33	16.45 7	17.8	2.25	44 39	17.91 1	42.6	5.38	43 16	15.20 5	88	96.0	55.8
11.49w 11	60.2	92.48	47 51	18.02 1	35.2	96.88	42 53	17.75 1	18.1	2.28	45 28	16.03 8	43.7	5.49	52 28	16.10 6	110	98.7	56.6
15.53 9	60.1	92.49	53 04	17.79 3	38.4	97.27	40 08	17.85 2	18.2	2.29	45 31	17.81 1	44.0	5.52	50 57	16.58 2	205	10.7	42.4
15.61 9	62.6	92.78	47 40	17.54 1	39.3	97.40	48 18	17.96 2	20.4	2.58	38 21	17.87 3	45.8	5.77	40 58				
17.91 1	68.1	93.48	46 01	17.59 3	39.3	97.40	52 21	15.46 9	22.4	2.82	41 58	18.27 2	46.6	5.86	47 25				
16.36 5	68.8	93.58	54 27	16.93 3	41.6	97.67	42 48	17.81 1	23.2	2.91	53 24	17.05d 1	47.8	6.03	41 16				
17.86 1	69.9	93.69	41 50	17.75 1	42.5	97.80	47 01	13.63 14	24.4	3.07	47 23	16.43 7	50.2	6.31	46 22				
15.39 9	70.3	93.74	42 22	15.82 9	42.8	97.84	49 36	16.63 5	24.7	3.11	48 30	15.84 2	52.5	6.64	35 55				
14.84 12	71.9	93.95	49 51	15.40 9	45.5	98.16	37 44	17.79 3	25.1	3.16	40 29	17.21 1	54.6	6.90	37 06				
15.91 9	73.0	94.08	40 41	17.60 1	46.3	98.28	52 49	17.91 1	25.8	3.24	52 13	17.49d 1	57.8	7.28	45 19				
17.50 3	74.6	94.30	51 30	18.02 1	46.8	98.34	43 15	15.26 10	27.6	3.46	53 50	17.70 1	58.2	7.33	48 50				
16.14 9	76.5	94.53	47 52	17.91 1	47.0	98.36	39 05	17.27 3	27.5	3.46	46 40	16.94 3	58.5	7.37	40 09				
17.71 3	78.6	94.76	39 18	16.35 8	50.8	98.84	41 17	18.02 1	27.7	3.49	46 15	17.21 1	58.9	7.39	54 12				
17.86 1	78.6	94.80	53 07	17.75 2	51.9	98.98	43 47	15.95 9	31.6	4.00	35 26	16.94n 1	61.0	7.67	45 27				
17.97 2	79.6	94.93	52 16	17.86 1	54.1	99.25	36 16	17.70 1	34.4	4.31	52 39	17.27 1	67.9	8.53	54 03				
17.70 1	80.5	95.03	42 48	17.65 1	54.8	99.35	47 24	16.62 5	35.2	4.43	49 17	15.15 10	69.6	8.75	48 56				
18.17 2	80.8	95.09	51 19	7.83w 3	57.6	99.70	45 23	16.06 9	35.5	4.46	46 49	16.93 3	72.1	9.07	45 20				
13.89 14	81.8	95.17	35 25	17.94 3	60.1	0.01	48 57	17.96 2	36.6	4.63	39 25	17.20 3	72.3	9.11	40 33				
17.78 3	85.4	95.64	43 37	12.21w 11	61.1	0.14	51 20	18.01 3	37.4	4.71	42 49	17.81 1	75.5	9.47	50 40				
16.60 3	85.8	95.68	36 25	15.54 9	65.4	0.67	44 06	17.53 2	38.5	4.86	39 25	17.60 1	76.9	9.65	52 36				

25 prec. $+ 90^{\mathrm{s}}.8, - 8' 6''$

Area 14. Center for 1900: 13^h 22^m + 59° 30′ (20′ × 20′)

1—25				26—50				51—75				76—100				101—102			
Mag.	α 21^m	x	$y+30'$	Mag.	α 21^m	x	$y+30'$	Mag.	α 22^m	x	$y+30'$	Mag.	α 22^m	x	$y+30'$	Mag.	α 23^m	x	$y+30'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
14.92 1	5.4	93.08	32 15	17.28 3	48.4	98.52	18 25	17.89 1	19.3	2.46	21 35	14.43 9	53.3	6.75	32 39	17.68 1	40.9	12.79	31 38
15.03 9	5.7	93.10	28 31	18.03 1	49.6	98.68	29 23	17.31 3	19.5	2.48	31 05	18.10 1	53.9	6.86	20 43	14.39 8	41.0	12.81	29 06
17.89 1	7.6	93.34	29 29	17.06 3	50.0	98.73	25 34	**10.50w12**	**21.1**	**2.68**	**25 06**	16.66 3	54.6	6.98	18 27				
15.90 4	7.6	93.34	25 57	17.33 3	50.5	98.79	29 30	18.24 1	24.1	3.06	27 21	13.47 10	56.2	7.13	34 30				
17.96 1	8.1	93.40	29 45	17.54 1	52.1	99.00	31 00	18.24 1	26.4	3.35	28 12	17.31 2	58.5	7.48	18 41				
17.01 3	8.8	93.47	23 41	16.88 3	52.9	99.10	22 10	15.51 4	28.3	3.59	34 43	17.96 1	64.9	8.29	16 40				
17.89 1	11.7	93.83	17 21	16.56 4	53.2	99.14	26 24	18.24 1	30.4	3.86	28 13	17.26 1	65.4	8.33	20 37				
17.09 3	13.9	94.13	24 38	13.58 10	54.8	99.34	15 04	17.36 3	31.2	3.98	21 47	16.70 3	66.0	8.41	23 58				
14.63 9	18.7	94.73	17 09	17.22 3	56.0	99.49	23 25	17.29 3	32.2	4.08	31 19	16.73 3	66.5	8.47	24 08				
17.17 3	24.3	95.44	19 20	16.62 3	57.1	99.62	16 34	17.29 3	33.5	4.28	17 51	15.33 7	67.2	8.54	28 41				
15.05 9	26.1	95.69	25 43	17.96 1	57.1	99.64	34 02	17.31 3	35.1	4.48	18 34	17.47 1	67.7	8.57	33 22				
17.17 3	26.1	95.70	31 32	18.03 1	58.9	99.86	32 17	17.82x 1	39.2	4.96	30 55	18.03 1	71.6	9.10	27 35				
13.32 10	26.4	95.72	24 54	14.12 10	60.8	0.10	26 21	18.31x 1	39.8	5.07	24 51	17.33 1	74.0	9.40	27 39				
17.24 3	29.0	96.06	27 30	17.06 3	61.7	0.21	18 47	16.87 3	40.3	5.14	22 46	16.39 3	74.3	9.44	29 46				
17.47 1	29.5	96.11	24 35	15.39 9	61.8	0.23	21 09	17.35 3	41.4	5.28	22 37	17.47 1	75.1	9.54	26 24				
15.90 4	31.1	96.32	25 12	17.58 3	67.5	0.95	26 15	17.31 3	42.0	5.32	30 01	16.25 1	81.6	10.34	34 27				
17.47 1	31.4	96.35	17 45	18.03 1	70.8	1.38	21 47	17.54? 1	42.1	5.34	32 41	16.98 3	81.6	10.37	27 13				
17.40 1	33.6	96.62	18 47	18.24x 1	71.9	1.51	27 18	17.40 3	43.4	5.53	21 04	17.20 3	82.0	10.39	33 20				
14.11 10	35.2	96.84	18 26	17.34 3	72.5	1.59	23 44	15.53 4	43.9	5.59	20 23	17.82 1	90.0	11.44	25 09				
17.89? 1	37.3	97.12	32 27	17.35 2	73.4	1.71	22 12	14.74 9	44.6	5.66	29 22	18.03x 1	92.7	11.78	26 46				
17.54 1	38.7	97.28	19 29	15.11 9	74.4	1.82	31 48	15.38 4	44.8	5.73	19 13	17.09 3	94.2	11.94	31 38				
18.03 1	40.2	97.47	19 14	15.90 4	76.4	2.08	33 02	17.89x 1	45.3	5.76	29 48	16.53 3	97.5	12.43	22 58				
17.47 1	42.3	97.75	24 34	13.37 11	78.0	2.28	34 47	17.18 3	45.5	5.78	28 19	17.47 1	99.1	12.56	33 04				
14.80 9	42.3	97.75	27 21	16.10 4	79.1	2.43	27 28	16.78 3	50.4	6.44	17 51	16.44 3	98.8	12.59	24 47				
16.98 3	44.8	98.07	26 19	16.92 3	79.0	2.43	16 18	15.64 6	52.4	6.68	24 05	15.38 4	99.8	12.71	20 17				

1s—11s			
Mag.	α 20^m	x	$y+30'$
	s	′	′
11.84 15	53	91.5	23.3
16.89 2	57	92.0	25.6
17.07 2	58	92.1	21.8
16.79 2	58	92.1	25.2
17.19 2	61	92.5	22.0
14.89 7	62	92.6	30.4
16.50 2	63	92.7	23.3
16.79 2	112	99.0	35.2
16.09 2	115	99.4	14.1
17.17 2	125	0.6	36.2
14.93 7	128	1.0	35.5

25 prec. + $56^s.8$, − 7′ 49″

15^h

Area 15. Center for 1900: 15^h 17^m + 59° 50′ (20′ × 20′)

+ 59°, + 60°

1—25				26—50				51—75				76—100				101—125			
Mag.	α 15^m	x	$\frac{y+50'}{y-10'}$	Mag.	α 15^m	x	$\frac{y+50'}{y-10'}$	Mag.	α 16^m	x	$\frac{y+50'}{y-10'}$	Mag.	α 16^m	x	$\frac{y+50'}{y-10'}$	Mag.	α 17^m	x	$\frac{y+50'}{y-10'}$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
16.80 3	18.0	87.17	47 51	17.14 3	47.3	90.88	52 24	15.74 3	16.2	94.51	55 39	16.57 3	48.7	98.59	59 20	16.28 3	15.1	1.89	57 29
11.23w12	17.9	87.19	50 49	17.91 1	47.1	90.90	4 34	17.22 3	16.9	94.58	46 25	17.43 1	50.7	98.82	46 53	12.89w11	15.1	1.90	49 23
16.46 3	17.7	87.20	56 10	14.22 9	49.3	91.14	59 53	18.22 1	18.5	94.79	51 51	16.72 3	52.5	99.07	0 14	17.61 1	15.8	1.98	58 51
17.43 1	22.9	87.85	58 13	13.75 11	50.7	91.33	56 03	17.16 3	20.0	94.98	51 52	15.71 3	54.8	99.35	59 07	17.12 2	17.1	2.14	2 56
11.84w13	24.7	88.08	58 24	15.00 8	50.9	91.35	56 44	15.79 3	20.1	94.99	47 03	17.30 1	55.3	99.41	4 35	17.61 1	19.4	2.43	3 14
15.62 1	27.2	88.41	4 47	18.04 1	51.8	91.43	46 18	16.08 3	20.3	95.04	55 37	18.10 1	55.5	99.44	48 08	17.98 1	19.8	2.48	58 20
17.43 1	28.7	88.58	59 12	16.03 3	52.7	91.55	52 11	17.21 3	20.7	95.09	58 42	18.10 1	56.5	99.56	59 19	18.04 1	20.6	2.59	47 12
15.84 3	31.1	88.86	59 35	17.09 3	52.5	91.58	1 09	17.52 3	28.3	96.03	54 57	18.22 1	57.8	99.73	56 06	18.10 1	23.1	2.90	50 25
12.41w11	32.1	88.97	52 16	17.61 2	53.0	91.60	54 54	12.84w11	30.5	96.31	58 20	17.61 1	58.1	99.76	55 46	16.11 3	23.6	2.95	58 58
15.21 1	32.2	89.04	2 06	17.27 3	56.1	92.00	58 50	16.81 3	32.8	96.57	46 41	15.74 3	58.4	99.80	51 59	16.20 3	24.3	3.06	48 20
16.99 3	34.1	89.23	52 45	18.10 1	57.1	92.09	49 32	15.77 3	33.1	96.63	50 48	17.61 1	61.0	0.12	58 00	17.18 3	26.6	3.33	57 18
15.81 3	35.0	89.34	51 05	17.91 1	57.8	92.18	49 29	**9.98w12**	**34.0**	**96.74**	**52 58**	17.33 3	62.8	0.35	45 29	14.41 9	28.2	3.52	58 31
15.75 3	35.1	89.36	54 59	17.55 1	58.2	92.23	47 19	15.94 3	35.1	96.89	57 30	17.55 1	63.3	0.41	1 48	17.19 2	29.6	3.73	46 33
17.73 1	36.5	89.52	50 58	17.37 1	59.9	92.50	4 20	15.81 3	35.4	96.93	0 36	17.67 1	63.5	0.44	47 48	17.55 1	30.8	3.85	5 00
14.68 1	36.4	89.56	4 08	17.36 3	62.1	92.74	53 25	14.76 8	36.3	97.03	53 00	15.46 4	64.3	0.54	59 21	17.91 1	31.5	3.94	0 42
15.92 1	38.7	89.85	3 22	17.15 3	62.2	92.79	3 28	16.04 3	36.6	97.07	56 04	15.70 3	65.1	0.64	0 42	16.98 3	31.7	3.96	58 58
16.88 3	39.1	89.90	0 25	17.32 2	62.3	92.80	3 40	17.51 2	37.3	97.15	48 56	16.17 3	65.4	0.68	0 14	16.68 3	33.1	4.14	56 02
17.98 1	40.5	90.00	45 53	17.33 3	63.5	92.89	45 29	15.99 3	37.6	97.20	4 08	16.94 3	66.3	0.79	2 56	15.74 1	33.5	4.19	2 57
16.60 3	41.4	90.19	2 18	17.18 1	63.3	92.93	4 21	14.67 9	37.9	97.22	53 10	12.76w11	66.6	0.82	50 30	15.26 6	33.8	4.22	0 58
18.04 1	42.3	90.28	58 28	17.36 3	64.1	93.00	55 32	18.10 1	38.3	97.29	59 30	17.16 3	66.6	0.83	0 45	15.23 8	33.8	4.23	58 48
17.17 3	43.3	90.38	53 15	14.08 9	66.7	93.32	55 48	11.34w14	39.2	97.39	50 41	17.14 3	67.0	0.88	2 03	14.57 8	35.9	4.50	51 25
15.09 1	44.1	90.52	3 34	14.84 8	69.9	93.72	58 51	16.56 3	40.2	97.53	57 07	17.79 1	68.3	1.05	45 26	17.37 1	36.3	4.54	4 04
18.04 1	44.8	90.59	57 18	13.51w10	71.1	93.85	48 23	16.46 3	43.6	97.94	54 47	17.37 3	69.2	1.15	52 21	16.51 3	37.4	4.70	45 42
17.18 1	45.3	90.68	4 29	16.78 3	72.7	94.06	50 19	18.22 1	46.9	98.36	56 28	18.16 1	72.8	1.60	53 49	15.56 1	38.2	4.77	3 02
18.10 1	46.4	90.79	56 43	16.86 3	75.4	94.39	45 50	17.39 3	47.4	98.42	52 53	18.04 1	72.9	1.62	45 32	17.91 1	39.2	4.90	55 02

25 prec. + $33^s.1$, − 5′ 28″

15^{h} Area 15 + 59°, + 60°

126—135				136—145				146—151				1s—9s			
Mag.	α 17^{m}	x	$y+50'$ / $y-10'$	Mag.	α 17^{m}	x	$y+50'$ / $y-10'$	Mag.	α 17^{m}	x	$y+50'$ / $y-10'$	Mag.	α 15^{m}	x	$y+50'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
15.22 6	39.3	4.91	0 42	17.26 3	46.3	5.81	51 08	17.26 3	52.6	6.61	49 12	16.69 2	15	86.8	47.4
17.43 1	39.9	4.98	1 00	17.37 1	47.4	5.95	50 12	17.37 1	53.1	6.65	56 32	17.23 2	58	92.2	44.6
16.70 1	40.7	5.07	2 37	17.37 1	49.4	6.16	1 40	14.06 8	53.3	6.70	48 22	14.37 7	59	92.3	43.0
17.55 1	41.1	5.13	4 10	17.43 1	49.5	6.18	2 03	17.30 1	54.4	6.84	47 43	14.65 7	72	94.0	42.4
16.31 3	40.8	5.13	54 22	14.86 1	49.6	6.20	0 25	17.73 1	54.9	6.87	59 22	15.50 2	117	99.6	44.9
18.04 1	41.7	5.22	56 12	17.30 1	49.8	6.21	2 28	17.79 1	55.1	6.88	1 20	15.69 2	118	99.7	44.5
17.37 1	42.6	5.34	57 19	18.04 1	49.7	6.24	51 00					13.32 10	120	0.0	43.2
17.24 1	42.6	5.35	50 46	18.04 1	50.4	6.32	53 08					16.22 2	128	1.0	44.1
17.43 1	43.4	5.41	2 35	17.79 1	50.6	6.34	55 55					16.83 2	135	1.8	44.4
17.91 1	43.5	5.43	1 17	17.37 1	52.2	6.51	2 27								

25 prec. + 33^{s}.1, − 5′ 28″

17^{h} Area 16. Center for 1900: 17^{h} 29^{m} + 59° 50′ (15′ × 15′) + 59°

1—40				41—80				81—112				1s—40s				41s—61s			
Mag.	α 27^{m}	x	$y+50'$	Mag.	α 28^{m}	x	$y+50'$	Mag.	α 29^{m}	x	$y+50'$	Mag.	α 27^{m}	x	$y+50'$	Mag.	α 29^{m}	x	$y+50'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′		s	′	′
17.67 3	41.0	90.09	51 06	16.04 3	30.9	96.33	41 20	16.64 4	13.2	1.66	49 12	16.78 2	23	87.8	45.0	16.19 3	43	5.4	52.0
17.71 3	42.9	90.27	40 23	14.65 9	32.1	96.48	43 11	15.62 5	13.3	1.67	52 53	15.53 4	26	88.2	45.8	17.34 2	45	5.6	42.0
16.09 4	43.0	90.29	41 03	16.99 3	32.8	96.58	42 11	16.98 3	13.3	1.68	40 40	17.16 2	28	88.4	47.8	12.85: 8	45	5.6	44.6
16.41 3	42.6	90.29	54 28	17.82 2	34.2	96.75	43 38	17.60 3	14.8	1.86	43 56	14.42 8	30	88.6	41.6	16.20 3	48	6.0	42.4
18.20 2	45.1	90.60	50 17	18.05 3	35.2	96.87	43 10	15.81 8	14.9	1.87	49 58	15.85 3	30	88.6	45.4	17.87 2	47	6.0	43.0
15.91 4	48.2	90.99	54 10	17.25 3	36.0	96.99	52 14	16.07 3	14.9	1.88	45 43	15.92 3	32	88.9	41.3	16.26 3	48	6.0	49.0
17.16 3	53.8	91.65	42 12	18.05 3	38.3	97.28	50 51	17.40 3	15.8	1.99	53 30	15.64 4	32	88.9	44.7	15.97 3	48	6.0	50.5
15.53 6	55.1	91.81	42 58	15.43 7	39.0	97.36	46 01	15.38 7	15.8	1.99	44 27	15.13 8	33	89.0	41.2	17.78 2	50	6.3	44.0
17.42 3	55.7	91.91	47 19	11.27w 8	40.4	97.52	40 58	16.93 3	16.2	2.04	40 27	15.31 4	33	89.0	48.5	17.70 2	50	6.3	46.8
17.76 1	57.0	92.10	52 55	17.96 1	40.3	97.53	49 05	16.04 4	16.3	2.05	54 08	13.02 10	33	89.1	51.7	16.45 2	51	6.4	51.1
17.30 3	57.4	92.12	47 16	15.74 9	40.4	97.54	47 45	16.00 4	16.4	2.06	54 11	16.17 3	36	89.4	45.7	16.50 2	53	6.6	39.4
15.77 6	58.6	92.28	49 55	9.16w 6	40.7	97.57	45 50	15.84 8	17.1	2.15	47 42	16.41 2	37	89.6	38.0	16.82 2	53	6.7	44.2
14.90 9	58.6	92.28	49 46	16.11 3	41.7	97.70	53 34	14.02 10	17.2	2.17	41 23	16.58 2	39	89.8	47.0	14.13 9	54	6.8	42.8
13.35w 9	58.8	92.32	51 23	14.23 10	43.1	97.88	46 43	18.01 3	17.9	2.26	42 32	16.85 2	44	90.4	39.2	14.87 8	57	7.2	40.4
16.66 4	58.8	92.32	52 30	13.84w 8	44.1	98.00	44 52	12.96w 10	18.8	2.38	42 59	17.14 2	46	90.6	40.0	16.79 2	57	7.2	49.0
16.82 3	58.8	92.32	53 28	17.22 3	44.6	98.06	41 38	16.62 4	19.1	2.40	51 27	15.13 6	47	90.8	38.4	16.35 3	59	7.4	44.0
17.08 3	62.8	92.79	42 09	17.63 2	46.2	98.26	49 48	16.04 4	20.6	2.59	52 37	16.30 3	55	91.8	38.8	17.20 2	61	7.7	48.0
16.72 3	62.9	92.84	54 57	17.78 3	47.6	98.44	47 16	17.30 3	21.0	2.64	51 24	9.89 10	58	92.2	55.3	17.36 2	63	7.9	48.8
17.06 3	63.5	92.88	44 05	17.84 3	48.2	98.51	42 34	16.22 4	21.4	2.69	53 00	16.92 2	61	92.5	37.6	17.70 2	66	8.3	48.4
14.07 10	66.1	93.23	49 50	17.81 1	49.7	98.71	54 29	17.35 3	23.4	2.94	50 48	17.10 2	67	93.4	55.4	16.01 3	67	8.4	45.8
17.64 2	66.6	93.29	46 08	18.31 3	53.4	99.17	48 13	17.50 2	26.0	3.27	45 27	15.49 4	76	94.4	36.4	15.40 3	71	9.0	45.3
15.22 9	69.0	93.59	45 37	17.35 3	53.8	99.22	53 15	16.36 4	26.4	3.33	42 46	16.29 3	78	94.8	39.2				
16.56 3	70.6	93.79	49 16	16.14 3	61.1	0.14	44 04	15.91 4	26.7	3.36	41 33	14.83 8	81	95.1	37.5				
18.45 2	73.0	94.10	50 06	16.17 3	61.5	0.19	44 23	17.03 3	27.3	3.44	46 08	16.22 3	88	96.0	39.2				
15.50 9	74.7	94.29	41 54	17.85 2	62.0	0.25	49 44	17.61 3	27.9	3.50	53 19	16.01 3	88	96.0	39.8				
16.13 3	75.0	94.32	42 56	16.31 4	62.7	0.34	53 18	15.18 8	31.7	3.98	53 17	15.81 3	95	96.9	36.4				
17.56 2	76.0	94.47	53 59	16.07 3	64.5	0.56	43 28	14.89 9	34.9	4.39	46 10	16.70 2	106	98.2	34.8				
13.13w 9	76.3	94.50	47 59	15.70 6	65.2	0.65	43 57	15.46 7	36.9	4.64	45 03	16.98 2	117	99.6	36.7				
16.73d 1	76.7	94.54	40 29	14.99 9	65.8	0.73	50 32	17.78 3	38.0	4.78	45 19	14.96 7	118	99.7	56.0				
18.00 3	77.0	94.57	42 20	16.70 3	66.0	0.76	44 59	17.19 3	39.0	4.89	52 29	17.74 2	122	0.2	57.1				
16.88 3	77.4	94.65	54 58	17.91 1	66.6	0.83	49 54	13.40 11	39.2	4.94	44 31	16.07 3	128	1.0	37.0				
17.56 2	78.2	94.74	46 22	16.82 3	67.3	0.91	48 15	17.01 3	39.7	4.97	51 00	17.12 2	129	1.1	39.5				
17.45 3	82.5	95.30	52 09	15.52 9	67.9	0.99	52 23					17.57 2	140	2.6	55.2				
15.28 9	83.7	95.43	44 33	16.41 4	68.1	1.02	49 03					17.32 2	145	3.1	37.8				
14.33 10	84.7	95.57	54 23	17.33 3	68.5	1.07	48 39					12.91 11	145	3.2	36.5				
13.78 9	85.6	95.69	52 02	18.59 2	68.5	1.07	46 03					17.75 2	153	4.2	38.0				
17.52 2	86.7	95.83	50 14	17.37 3	69.3	1.16	53 11					15.89 3	153	4.2	39.6				
17.16 3	86.9	95.85	52 51	17.43 3	71.9	1.49	51 18					15.83 3	155	4.4	39.2				
17.32 3	88.2	96.00	46 08	13.76w 10	72.3	1.55	47 56					17.52 2	160	5.0	49.2				
16.43 4	89.7	96.20	51 48	16.99 3	72.6	1.59	40 26					17.06 2	162	5.3	40.8				

25 prec. + 19^{s}.8, − 1′ 8″

Area 17. Center for 1900: $19^h 23^m + 60° 10′ (15′ × 15′)$

1—60					61—120					121—180					181—240					241—291				
Mag.		α 21^m	x	$y+10'$	Mag.		α 22^m	x	$y+10'$	Mag.		α 22^m	x	$y+10'$	Mag.		α 22^m	x	$y+10'$	Mag.		α 23^m	x	$y+10'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
16.16	7	40.2	90.06	5 28	18.40	2	14.0	94.28	5 45	17.43	3	34.7	96.86	14 03	18.19	2	58.7	99.84	13 41	17.09	7	22.0	2.74	8 40
18.10	1	40.5	90.07	0 30	16.72	5	14.9	94.37	2 11	17.30	7	34.9	96.89	11 11	18.20	2	58.7	99.84	12 20	17.30	3	21.9	2.74	3 31
17.90	3	40.6	90.14	12 40	18.41	1	15.3	94.42	1 20	18.72	1	35.4	96.95	11 07	10.91w	13	59.0	99.87	2 11	18.44	2	23.1	2.88	8 03
17.89	1	41.1	90.20	14 30	17.81	3	16.0	94.51	0 14	17.45	5	36.6	97.09	5 29	18.18	2	59.0	99.87	3 24	16.99	5	23.2	2.90	2 07
17.43	3	42.3	90.35	12 16	18.20	3	16.1	94.54	9 19	18.01	2	36.9	97.11	2 49	17.27	3	59.5	99.94	13 14	17.53	3	23.5	2.92	10 28
17.60	2	42.7	90.35	1 17	18.19	2	16.8	94.63	9 45	18.02	3	37.0	97.13	0 05	18.14	3	59.8	99.97	0 58	17.20	4	23.6	2.93	11 07
17.69	1	42.8	90.36	0 05	18.38	2	17.6	94.74	12 43	17.77	3	37.4	97.18	1 39	17.49	3	59.9	99.99	12 29	16.64	8	23.7	2.95	8 56
18.51	1	42.5	90.37	13 59	17.05	6	18.4	94.84	14 35	17.89	3	38.5	97.33	10 49	18.41	1	60.0	0.00	1 45	16.94	4	24.2	3.00	12 32
17.77	3	42.5	90.38	13 47	15.34	11	18.7	94.86	6 16	11.72	13	38.8	97.36	8 01	17.55	3	60.6	0.07	12 02	17.77	3	24.9	3.11	3 02
17.89	1	43.3	90.42	0 05	18.39	2	19.0	94.91	10 29	16.36	8	39.0	97.38	0 01	15.15	11	61.8	0.22	11 29	17.40	3	25.3	3.16	3 07
14.46	12	43.7	90.47	3 19	15.96	8	19.1	94.91	6 14	13.41	15	39.4	97.43	0 18	18.82	1	62.7	0.34	12 39	16.86	7	25.5	3.19	2 46
16.62	6	43.4	90.49	13 12	17.34	3	19.5	94.95	2 54	17.59	3	40.1	97.53	8 30	18.33	2	62.9	0.36	9 09	16.13	8	25.8	3.23	2 52
17.21	3	44.1	90.53	1 00	17.89	3	19.7	94.99	9 17	17.14	8	40.6	97.59	12 09	16.49	7	63.7	0.46	12 25	18.41	1	26.7	3.31	12 04
17.96	3	44.3	90.55	0 23	16.91	4	20.4	95.06	0 35	14.77	12	40.8	97.60	0 13	16.79	8	64.6	0.58	10 06	17.05	8	26.7	3.31	12 03
18.61	1	45.1	90.67	9 34	17.27	7	20.3	95.06	6 46	**9.05w**	8	41.1	**97.65**	**9 00**	16.95	8	64.7	0.59	7 14	18.15	3	27.4	3.41	5 57
16.94	5	45.6	90.71	2 09	17.38	5	20.9	95.14	12 16	18.82	1	41.2	97.66	13 46	17.07	6	64.7	0.59	4 40	16.93	8	28.5	3.54	13 02
18.35	2	45.3	90.72	12 04	16.87	5	21.3	95.16	2 19	18.24	2	41.4	97.69	12 32	17.27	7	65.1	0.64	8 46	18.35	2	28.9	3.60	8 09
17.69	1	45.9	90.78	6 02	17.71	2	21.7	95.22	9 45	17.20	4	41.7	97.73	14 03	15.99	9	65.8	0.72	3 40	17.97	2	29.2	3.65	2 54
16.86	8	46.3	90.83	9 18	17.37	2	22.1	95.26	2 02	17.15	8	42.2	97.79	6 44	17.09	6	65.9	0.74	6 46	16.75	8	29.5	3.66	12 15
17.43	3	47.3	90.98	12 53	18.00?	1	22.9	95.37	5 06	15.53	11	43.0	97.87	0 58	18.41	1	66.2	0.77	0 26	17.26	4	29.7	3.69	10 38
18.14	2	48.6	91.11	5 30	15.16	11	23.2	95.41	7 43	16.62	8	43.1	97.89	4 16	17.86	3	66.6	0.82	4 19	16.68	8	29.7	3.69	13 08
16.98	4	49.2	91.19	5 00	18.05	2	23.2	95.42	11 58	18.82	1	44.0	98.01	8 04	16.77	8	66.6	0.82	2 07	16.34	9	29.6	3.69	7 26
16.54	8	49.8	91.24	4 22	18.29	2	23.4	95.43	4 14	17.07	6	45.0	98.12	3 56	13.16	15	67.2	0.90	1 17	16.89	6	29.8	3.70	14 11
16.97	3	50.7	91.35	0 55	14.88	12	24.1	95.54	12 03	17.17	7	44.9	98.13	10 30	17.91	3	67.8	0.97	9 46	18.10	3	30.2	3.76	5 29
16.70	8	50.9	91.37	4 09	17.59	5	24.2	95.54	7 44	18.03	2	45.2	98.16	11 18	16.59	8	68.2	1.02	5 06	18.11	3	30.4	3.79	9 29
18.31	3	51.5	91.47	6 04	17.20	3	24.2	95.55	12 07	16.75	8	45.5	98.20	10 44	18.15	2	68.2	1.02	8 57	18.10	1	30.3	3.79	3 02
17.00	7	52.2	91.56	6 42	15.33	10	25.0	95.63	2 17	16.65	7	45.8	98.23	0 11	17.79	3	68.3	1.04	1 31	17.35	3	31.0	3.88	1 23
15.80	10	53.4	91.69	3 38	17.54	3	24.9	95.64	10 57	18.92	1	46.0	98.26	11 49	18.41	1	68.8	1.10	2 14	17.49d	1	31.5	3.92	5 19
17.21	3	54.6	91.85	6 43	18.27	2	25.5	95.71	10 41	18.04	2	46.3	98.29	4 30	17.93	3	69.1	1.13	14 04	16.62	8	31.9	3.96	13 06
17.56	3	55.0	91.90	8 40	17.21	5	25.9	95.76	13 48	16.29	8	46.5	98.32	14 48	17.23	7	69.6	1.20	9 55	15.07	12	31.7	3.96	3 57
14.66	11	55.4	91.94	2 23	17.43	3	26.3	95.79	3 17	16.10	8	46.7	98.35	5 45	17.43	3	69.8	1.21	13 34	17.04	6	32.2	4.01	8 50
18.31	3	55.6	91.96	3 15	16.03	9	26.7	95.84	1 06	18.25	3	47.1	98.39	2 58	16.39	8	70.1	1.26	9 42	17.95	3	32.6	4.06	6 21
18.09	2	56.7	92.14	10 38	15.22	12	27.5	95.94	2 49	16.04	9	47.1	98.40	14 26	16.27	8	70.2	1.27	9 46	16.84	8	33.4	4.17	3 31
18.35	2	57.1	92.16	7 43	17.85	3	27.8	95.97	0 33	16.36	7	47.5	98.44	9 30	18.41	2	70.2	1.27	4 09	16.80	5	34.0	4.25	1 19
15.05	12	57.8	92.24	1 49	15.30	9	27.9	96.00	5 26	17.43	6	47.8	98.47	8 15	17.51	3	70.8	1.35	3 00	18.61	1	34.1	4.25	9 14
18.03	3	58.4	92.31	3 14	15.14	11	28.9	96.11	3 28	12.29	16	48.2	98.53	9 42	18.47	2	71.6	1.44	10 26	18.10	3	34.2	4.26	6 51
15.52	10	58.3	92.34	11 24	17.76	3	28.9	96.14	11 41	13.39	16	48.2	98.53	8 27	14.51	12	72.2	1.53	5 57	16.00	9	34.8	4.34	7 18
13.51	14	58.5	92.34	7 54	17.74	3	29.3	96.19	13 15	16.66	6	50.0	98.75	4 18	18.29	2	72.6	1.57	9 25	18.09	2	35.1	4.37	8 27
16.70	6	58.9	92.37	0 55	17.54	3	29.6	96.22	14 34	15.54	9	50.1	98.78	10 47	17.62	3	73.0	1.63	2 56	17.99	3	35.1	4.39	4 21
17.71	3	61.6	92.71	1 06	16.59	8	29.7	96.22	6 24	14.99	12	50.2	98.79	14 44	18.24	2	73.2	1.64	11 46	14.81	12	35.3	4.41	1 30
15.94	9	63.0	92.92	11 30	17.42	4	30.0	96.26	5 52	17.32	3	51.0	98.89	14 58	16.28	7	74.2	1.76	11 23	17.23	4	35.9	4.46	13 22
17.41	3	63.1	92.94	13 37	17.59	3	30.2	96.27	1 00	17.38	7	51.4	98.92	8 06	16.84	5	74.3	1.77	14 36	17.82	2	36.7	4.59	1 28
16.62	8	63.1	92.94	12 45	18.10	3	30.4	96.32	14 04	14.50	12	51.7	98.96	6 16	17.74	3	74.4	1.79	7 27	17.97	2	37.1	4.62	7 30
15.98	8	63.6	93.00	14 16	18.07	3	30.7	96.35	9 01	16.36	9	52.4	99.05	7 48	18.20	3	74.7	1.82	7 57	14.99	12	37.4	4.68	2 26
18.26	2	64.1	93.02	4 48	17.95	3	31.0	96.38	1 00	16.23	8	52.7	99.09	12 59	17.41	3	74.7	1.83	13 01	16.92	5	38.0	4.75	2 12
18.19	3	66.3	93.32	11 37	14.75	12	31.3	96.42	9 16	17.00	7	52.8	99.10	13 49	17.68	2	75.3	1.90	14 34	11.70	14	38.3	4.76	11 49
16.20	8	67.3	93.42	4 44	18.30	1	31.9	96.50	9 07	17.32	3	54.0	99.25	1 37	16.88	8	76.4	2.04	7 39	15.08	11	38.2	4.77	1 36
17.41	3	67.3	93.43	0 01	17.78	2	32.1	96.53	6 58	17.73	3	54.1	99.26	3 59	18.21	2	76.7	2.07	9 02	18.16	3	39.1	4.89	3 11
17.35	3	67.5	93.48	14 56	18.74	2	32.5	96.58	9 42	17.38	5	54.7	99.34	11 37	15.40	11	76.8	2.09	6 39	15.94	8	39.5	4.92	6 02
16.92	8	68.0	93.54	13 03	15.13	12	32.8	96.60	0 17	18.53	2	55.4	99.43	8 03	16.52	8	76.9	2.11	1 10	16.51	6	40.1	4.98	12 23
17.05	7	68.8	93.64	11 13	18.31	2	33.0	96.62	4 43	16.38	8	55.8	99.47	4 02	16.33	8	77.0	2.13	4 23	17.99	3	40.3	5.00	12 45
18.51	2	69.1	93.66	7 32	16.36	9	33.5	96.71	12 44	13.49	16	56.2	99.53	3 36	17.00	6	77.4	2.16	5 58					
17.85	3	70.4	93.81	1 55	18.01	2	33.8	96.72	2 47	18.33	3	56.3	99.54	0 55	18.18	3	77.6	2.20	3 55					
18.16	2	70.4	93.82	6 16	18.35	2	33.7	96.72	6 21	18.07	3	56.3	99.54	0 41	17.23	3	77.9	2.23	12 00					
17.70	2	71.3	93.94	6 06	16.96	8	34.0	96.76	7 27	16.90	8	56.3	99.54	14 08	14.62	13	78.0	2.24	9 11					
18.33	2	71.6	93.98	7 27	18.12	3	33.9	96.76	11 18	18.82	1	57.2	99.65	13 29	17.17	7	78.8	2.34	11 17					
14.30	11	72.8	94.14	11 25	18.41	1	34.2	96.79	7 28	11.19w	13	57.6	99.70	7 46	18.06	3	78.8	2.34	10 08					
15.41	10	73.1	94.16	7 00	17.47	3	34.6	96.82	2 16	18.10	3	57.7	99.71	4 30	18.27	2	80.1	2.50	9 40					
14.92	9	73.2	94.19	12 18	17.85	3	34.4	96.82	13 18	13.60	13	58.3	99.79	1 15	18.15	2	80.3	2.52	7 58					
16.86	8	73.5	94.22	14 24	18.92	1	34.5	96.84	12 59	18.10	1	58.6	99.82	13 00	18.15	3	81.3	2.65	10 31					

25 prec. + $22^{s}.2$, + 2′ 57″

1s—60s					61s—120s					121s—180s					181s—237s				
Mag.		α 21^{m}	x	$y+10'$	Mag.		α 21^{m}	x	$y+70'$ / $y+10'$	Mag.		α 22^{m}	x	$y+70'$ / $y+10'$	Mag.		α 23^{m}	x	$y+10'$
		s	′	′			s	′	′			s	′	′			s	′	′
16.63	3	14	86.8	11.5	18.16	2	47	90.9	16.0	17.84	2	49	98.6	16.8	15.09	8	43	5.4	1.4
17.68	2	15	86.9	9.4	16.77	4	47	90.9	16.5	14.32	12	50	98.8	17.2	17.54	2	44	5.4	3.2
16.22	7	16	87.0	7.4	13.84	13	49	91.2	16.7	15.12	9	51	98.9	57.9	17.95	2	43	5.4	6.4
17.79	2	15	87.0	10.4	17.65	2	49	91.2	18.1	16.09	7	51	98.9	59.9	17.95	2	43	5.4	8.9
17.70	2	18	87.3	13.2	17.52	2	50	91.4	16.2	18.02	2	51	98.9	20.0	17.00	4	44	5.4	13.9
17.29	2	19	87.4	4.0	17.69	2	52	91.6	18.2	15.49	8	52	99.0	17.5	11.94	14	44	5.5	4.5
16.60	7	20	87.6	6.4	17.00	4	53	91.7	15.3	17.78	2	52	99.0	19.4	15.25	10	44	5.5	5.4
17.62	2	21	87.7	14.1	13.78	12	54	91.8	15.7	17.91	2	53	99.1	16.0	16.70	6	45	5.6	3.3
14.99	10	22	87.8	4.5	17.60	2	55	92.0	17.1	16.68	6	54	99.2	20.0	17.69	2	45	5.6	5.0
17.49	2	23	87.8	4.7	17.62	2	57	92.2	17.3	16.76	5	56	99.4	17.2	16.72:	7	45	5.6	9.4
16.06	6	22	87.8	9.4	14.32	11	61	92.7	16.6	18.22	2	55	99.4	17.6	17.46	2	45	5.6	11.5
17.80	2	22	87.8	14.6	16.88	6	62	92.8	15.4	16.95	3	59	99.9	17.1	16.49	7	46	5.6	15.0
16.64	7	24	88.0	5.4	16.50	7	62	92.8	18.1	13.78	14	59	99.9	18.0	16.69	7	46	5.7	13.6
17.91	2	24	88.0	9.8	17.80	2	62	92.8	18.4	17.86	2	59	99.9	18.9	18.12	2	46	5.7	14.4
16.02	6	23	88.0	10.0	16.67	7	63	92.9	18.2	18.13	2	60	0.0	59.6	17.88	2	46	5.7	14.7
16.32	7	23	88.0	14.9	14.94	10	63	93.0	18.2	18.18	2	60	0.0	17.8	17.45	2	47	5.8	6.1
16.76	5	25	88.1	5.3	18.29	2	65	93.2	15.1	18.13	2	60	0.0	19.8	18.02	2	47	5.8	8.8
18.06	2	24	88.1	11.3	16.65	4	65	93.2	19.4	16.50	7	61	0.1	19.3	15.95	7	47	5.8	15.0
17.38	2	25	88.2	3.9	17.97	2	68	93.4	59.2	17.98	2	62	0.2	19.5	17.00	2	47	5.9	2.8
15.41	6	25	88.2	6.7	17.04	2	66	93.4	17.4	17.77	2	63	0.4	19.4	17.62	2	48	6.0	3.8
16.57	7	25	88.2	9.4	17.21	2	69	93.7	17.8	16.50	7	66	0.7	20.0	15.82	7	48	6.0	7.6
16.24	6	26	88.3	5.2	16.70	7	72	94.0	59.1	16.44	7	66	0.8	58.6	16.76	6	48	6.0	10.0
15.10	6	27	88.4	3.8	17.93	2	72	94.0	18.4	14.71	8	67	0.8	59.8	15.09	10	51	6.3	16.4
18.02	2	27	88.4	7.6	12.61	12	72	94.1	18.4	16.66	3	67	0.9	20.0	16.22	7	51	6.4	15.8
16.28	6	27	88.4	10.2	15.28	9	76	94.4	59.4	17.08	2	68	1.0	58.0	16.66	5	52	6.5	9.2
14.21	6	29	88.6	7.2	16.89	4	77	94.6	58.6	18.20	2	68	1.0	16.9	16.71	7	52	6.5	12.1
16.74	5	28	88.6	10.2	16.69	6	77	94.6	59.2	17.95	2	69	1.1	19.8	16.18	7	54	6.6	12.8
17.74	2	31	88.9	13.7	18.38	2	78	94.8	16.3	15.42	8	71	1.4	59.2	15.64	8	54	6.7	12.0
16.89	4	31	88.9	14.7	17.81	2	79	94.9	20.0	18.06	2	72	1.5	16.0	16.32	7	54	6.7	15.4
16.68	5	32	89.0	4.1	16.58	5	80	95.0	19.1	17.83	2	75	1.8	58.4	16.04	7	55	6.8	10.2
16.74	6	32	89.0	4.4	14.23	9	80	95.0	19.9	16.42	7	76	2.0	58.4	18.02	2	55	6.9	6.6
16.56	7	32	89.0	9.4	15.02	10	82	95.3	15.7	15.38	9	76	2.0	59.5	17.66	2	56	6.9	11.8
18.00	2	31	89.0	14.1	16.51	7	83	95.4	59.7	16.94	3	78	2.2	15.2	15.36	10	56	7.0	3.5
15.60	8	31	89.0	14.5	15.20	10	84	95.6	18.0	16.42	7	77	2.2	17.6	14.44	10	56	7.0	6.8
18.15	2	33	89.2	3.4	15.30	10	85	95.7	16.9	14.94	10	77	2.2	19.0	16.84	2	56	7.0	15.2
17.61	2	32	89.2	16.1	17.26	2	86	95.8	58.7	16.44	7	80	2.4	59.8	16.08	7	57	7.1	6.4
15.22	8	34	89.3	4.3	16.84	5	86	95.8	17.2	17.95	2	80	2.5	17.5	15.09	10	57	7.1	9.4
16.72	7	34	89.3	5.7	18.24	2	87	95.9	18.1	16.44	7	81	2.6	59.2	14.04	12	57	7.1	15.4
16.84	3	35	89.4	1.7	15.10	9	94	96.7	57.8	16.74	5	83	2.8	15.1	16.71	6	58	7.2	6.4
13.74	11	35	89.4	6.8	17.12	2	94	96.7	59.0	17.61	2	83	2.9	59.2	16.48	3	58	7.2	10.8
14.73	8	35	89.4	14.4	16.97	6	93	96.7	15.1	16.94	3	83	2.9	16.7	15.26	6	58	7.2	15.1
17.69	2	34	89.4	14.5	18.11	2	93	96.7	17.9	17.64	2	84	3.0	18.6	17.62	2	59	7.4	3.8
16.57	7	36	89.5	5.8	17.90	2	95	96.9	57.9	17.98	2	84	3.0	18.8	16.12	6	61	7.6	6.5
16.43	6	36	89.6	11.3	17.50	2	95	96.9	15.6	17.95	2	88	3.4	59.7	16.80	6	61	7.6	8.1
15.85	7	37	89.6	11.5	16.37	6	96	97.0	17.9	17.08	4	87	3.4	16.7	16.26	6	62	7.7	10.5
16.66	6	36	89.6	12.1	17.86	2	96	97.0	18.5	16.41	7	90	3.7	15.7	16.42	7	63	7.8	3.6
10.84	11	37	89.7	3.8	18.13	2	98	97.2	59.0	17.42	2	90	3.7	17.7	16.30	7	63	7.8	4.2
17.20	2	39	89.8	1.2	15.60	7	97	97.2	15.8	16.73	7	90	3.7	18.0	17.73	2	63	7.9	8.2
18.28	2	38	89.8	7.5	16.80	6	98	97.3	15.7	17.78	2	91	3.8	15.3	15.33	9	64	8.0	11.9
16.93	5	38	89.8	7.8	17.54	2	98	97.3	17.8	16.61	7	92	4.0	59.9	16.05	6	64	8.0	12.1
17.16	2	38	89.8	8.0	14.40	9	100	97.4	58.2	15.95	7	93	4.1	17.8	15.91	7	65	8.1	10.9
17.35	2	38	89.8	8.1	16.59	5	101	97.6	58.5	16.38	7	93	4.1	17.9	14.58	11	67	8.3	11.6
17.04	2	39	89.9	1.0	16.65	7	102	97.7	59.0	17.08	2	93	4.1	18.0	17.93	2	67	8.4	8.4
17.31	2	39	89.9	1.2	15.95	7	102	97.7	59.4	13.43	13	96	4.4	18.2	16.22	7	68	8.5	7.4
16.14	5	39	89.9	9.8	18.20	2	101	97.7	15.6	15.52	9	97	4.6	16.1	14.81	10	70	8.6	10.8
15.65	9	40	90.0	9.1	15.94	6	104	98.0	58.3	17.92	2	100	5.0	7.0	16.22	7	71	8.8	6.9
17.83	2	40	90.1	17.4	16.84	4	105	98.2	58.0	16.88	5	102	5.2	11.0	15.65	7	71	8.9	7.0
16.46	7	41	90.2	17.4	18.20	2	105	98.2	16.4	17.03	4	102	5.2	11.1					
16.78	6	43	90.4	15.3	15.17	9	109	98.6	57.6	16.83	5	101	5.2	13.2					
16.46	7	45	90.7	17.1	17.76	2	109	98.6	59.4	16.66	6	102	5.2	16.8					

25 prec. + $22\overset{s}{.}2$, + 2′ 57″

Area 18. Center for 1900: 21h 24m + 60° 10′ (15′ × 15′)

1—60			
Mag.	α 23^{m}	x	$y+10'$
	s	′	′ ″
17.58 5	28.0	96.01	8 46
14.16 15	27.9	96.01	13 17
17.19 6	28.2	96.03	4 16
17.57 3	28.3	96.04	1 38
17.15 6	28.2	96.04	7 46
15.89 9	28.1	96.04	14 40
17.06 6	28.3	96.06	14 30
18.50 3	28.4	96.06	5 47
18.27 3	28.5	96.08	9 49
18.66 3	28.7	96.09	2 01
18.28 3	28.9	96.12	7 39
17.73 5	28.9	96.13	9 31
16.88 6	29.0	96.13	3 10
17.15 6	29.1	96.14	1 42
16.25 9	29.2	96.15	1 50
17.48 3	29.2	96.15	0 28
17.44 5	29.3	96.19	13 04
16.13 9	29.3	96.19	10 10
15.93 10	29.8	96.23	2 10
17.51 5	29.7	96.23	6 34
17.95 3	29.9	96.25	5 17
17.99 3	30.2	96.29	6 32
17.48 5	30.2	96.30	14 29
17.80 5	30.4	96.31	9 27
18.38 3	30.5	96.31	1 11
18.33 3	30.6	96.32	4 45
15.67 10	30.5	96.34	10 56
14.88 12	30.5	96.34	11 30
18.43 3	30.9	96.36	4 33
17.37 6	31.3	96.41	0 21
16.61 6	31.2	96.41	6 52
17.36 5	31.6	96.46	6 55
18.38 3	31.7	96.49	10 06
17.37 2	31.7	96.49	13 16
17.91 3	32.0	96.50	4 48
17.97 3	32.0	96.50	4 37
17.88 3	32.0	96.52	10 46
17.72 2	32.0	96.52	13 53
18.86 3	32.1	96.53	7 08
17.55 2	32.4	96.57	13 53
18.41 2	32.5	96.57	7 21
17.94 3	32.6	96.59	6 52
17.41 5	32.8	96.63	11 10
15.59 11	33.0	96.65	11 16
18.64 1	33.4	96.69	8 16
16.93 7	33.5	96.69	2 28
16.03 10	33.6	96.73	10 37
18.36 3	33.8	96.74	9 16
17.42 5	34.5	96.82	8 15
18.19 3	34.5	96.84	10 09
12.79 16	34.5	96.84	12 51
18.30 3	34.5	96.84	14 54
18.57 2	35.0	96.89	8 28
17.23 6	35.4	96.92	1 20
18.59 3	35.5	96.96	14 42
18.21 2	36.1	97.03	14 17
13.48 15	36.1	97.03	7 43
17.62 6	36.3	97.04	4 56
16.20 9	36.4	97.05	2 53
18.17 3	36.5	97.08	10 39

61—120			
Mag.	α 23^{m}	x	$y+10'$
	s	′	′ ″
18.26 3	37.0	97.12	0 31
17.31 5	37.0	97.12	0 22
16.34 8	36.9	97.13	10 24
17.40 5	37.0	97.14	8 05
14.98 12	37.2	97.15	3 35
17.40 5	37.3	97.16	0 01
16.70 6	37.5	97.20	11 14
16.76 7	38.1	97.26	2 34
18.41 3	38.3	97.30	11 13
17.37 5	38.4	97.31	9 58
17.80 3	38.6	97.34	5 56
18.09 3	38.7	97.35	7 11
17.22 6	38.9	97.36	1 47
18.79 3	38.9	97.36	3 46
18.51 3	39.1	97.40	8 33
18.37 3	39.4	97.43	4 18
17.10 6	39.6	97.45	2 40
18.22 3	39.5	97.45	8 53
18.48 3	39.8	97.48	4 12
12.01 11	40.0	97.50	2 26
18.54 1	40.1	97.53	13 40
17.14 6	40.2	97.54	13 11
17.76 3	40.3	97.55	6 48
18.43 2	40.4	97.56	6 40
18.40 2	40.4	97.56	11 10
18.53 2	40.4	97.56	11 24
18.15 3	40.6	97.57	3 47
17.66 3	40.5	97.58	14 28
18.24 3	41.0	97.62	4 32
17.90 3	41.2	97.65	0 32
17.86 3	41.1	97.65	7 33
17.67 3	41.1	97.65	9 19
16.55 7	41.2	97.66	8 29
15.63 9	41.4	97.69	8 31
15.94 7	41.4	97.69	9 07
16.27 8	41.7	97.72	8 42
17.92 3	41.8	97.74	12 55
18.20 3	41.8	97.74	12 29
18.50 3	41.9	97.74	1 10
17.35 6	42.1	97.76	4 12
14.51 12	42.0	97.76	12 33
16.04 9	42.1	97.78	8 30
17.01 7	42.5	97.81	3 12
17.34 3	42.4	97.81	13 09
18.19 2	42.6	97.83	1 39
18.04 3	42.6	97.84	5 03
18.08 3	42.9	97.88	6 55
18.21 3	43.3	97.93	11 40
16.04 9	43.4	97.94	9 22
17.19 6	43.5	97.95	12 10
16.13 10	43.8	97.99	11 44
16.55 8	43.9	98.00	7 27
17.47 6	44.1	98.02	7 57
16.51 7	44.1	98.03	10 39
16.92 6	44.2	98.04	12 09
18.74 3	44.6	98.08	3 52
17.66 5	44.7	98.09	3 33
18.74 3	44.8	98.11	12 19
17.03 6	44.9	98.13	10 09
17.56 3	45.1	98.14	2 03

121—180			
Mag.	α 23^{m}	x	$y+10'$
	s	′	′ ″
17.76 5	45.2	98.16	9 29
16.67 6	45.3	98.17	14 02
17.61 3	45.8	98.24	11 20
18.46 3	46.5	98.32	7 14
18.06 2	46.5	98.33	14 46
17.69 4	46.9	98.37	10 04
18.52 3	47.1	98.40	10 13
18.13 2	47.2	98.40	2 26
17.60 6	47.3	98.42	10 29
17.48 5	47.3	98.42	12 14
17.25 6	47.3	98.43	11 55
18.40 3	47.5	98.44	0 31
16.02 8	47.7	98.48	13 02
18.23 2	47.9	98.50	14 22
17.49 5	48.1	98.52	13 44
17.96 3	48.2	98.52	2 03
18.78 2	48.1	98.53	13 28
17.35 6	48.3	98.54	0 54
16.57 8	49.0	98.64	11 57
17.90 3	49.3	98.66	2 20
18.08 3	49.4	98.67	4 19
17.67 3	50.0	98.75	1 27
16.24 8	50.2	98.79	13 59
17.39 6	50.6	98.84	12 02
17.84 3	50.9	98.86	7 55
18.15 3	51.0	98.89	13 20
18.10 3	51.0	98.89	13 08
17.79 3	51.4	98.94	12 34
15.90 10	51.4	98.94	10 33
17.00 6	51.5	98.94	0 18
18.41 3	51.7	98.96	6 05
17.80 3	51.9	98.99	9 56
16.77 8	51.9	98.99	7 26
18.03 3	52.1	99.01	9 29
16.96 6	52.2	99.02	8 29
16.48 7	52.3	99.04	3 53
18.64 1	52.3	99.04	12 10
18.22 3	52.7	99.09	8 08
16.82 6	52.9	99.11	9 16
18.56 3	52.9	99.11	6 53
11.92 11	53.0	99.12	13 24
18.62 3	53.0	99.12	1 05
18.11 3	53.0	99.13	5 58
17.64 4	53.3	99.16	14 09
17.87 2	53.3	99.16	5 08
17.94 3	53.4	99.17	9 04
18.14 3	53.8	99.22	3 20
18.70 3	54.1	99.26	4 03
16.90 6	54.1	99.26	0 43
13.72 15	54.2	99.27	3 02
17.52 5	54.3	99.29	10 59
15.86 10	54.7	99.34	7 23
18.26 3	55.0	99.37	1 21
17.95 5	55.2	99.40	6 06
17.53 5	55.4	99.42	10 24
17.66 6	55.4	99.43	3 04
18.68 3	55.8	99.47	10 44
18.29 3	55.9	99.49	1 38
18.16 3	56.3	99.54	14 09
18.38 3	56.3	99.54	1 23

181—240			
Mag.	α 23^{m}	x	$y+10'$
	s	′	′ ″
17.73 5	56.4	99.55	9 27
16.33 7	56.5	99.56	14 17
18.89 3	56.5	99.56	4 10
14.12 14	56.6	99.58	8 01
18.12 3	56.7	99.59	11 30
17.25 5	57.0	99.62	4 49
14.89 13	57.1	99.64	5 45
17.53 5	57.2	99.65	11 25
17.30 5	57.6	99.70	9 48
18.46 3	57.6	99.70	12 12
17.58 5	57.8	99.73	10 37
18.13 5	57.9	99.74	4 59
18.18 3	58.0	99.75	0 12
17.71 5	58.1	99.76	9 31
18.64 1	58.2	99.77	13 23
17.79 5	58.2	99.78	2 51
18.24 2	58.3	99.79	14 06
18.40 3	58.4	99.80	14 12
17.85 5	58.4	99.80	6 39
17.90 3	58.5	99.81	10 24
18.82 2	58.5	99.81	7 28
18.20 3	58.7	99.84	14 50
16.86 6	58.9	99.86	1 58
18.13 3	59.0	99.88	12 29
18.23 3	59.5	99.94	10 22
13.14 16	59.5	99.94	14 00
17.78 5	59.6	99.95	7 14
17.71 5	59.8	99.98	14 04
18.54 3	60.0	0.00	9 54
18.47 3	60.2	0.02	0 42
17.20 6	60.4	0.05	6 57
18.21 3	60.4	0.05	7 46
17.88 3	60.5	0.06	0 25
15.92 9	60.5	0.06	11 40
18.34 1	60.8	0.10	13 24
17.10 5	61.0	0.12	0 02
12.95 13	61.3	0.16	6 23
16.73 8	61.8	0.22	13 45
16.83 6	61.9	0.24	7 40
17.27 3	62.2	0.28	9 22
17.07 8	62.5	0.31	4 02
18.73 1	62.8	0.35	3 18
16.17 7	62.9	0.36	6 59
18.66 2	63.0	0.38	8 49
17.56 5	63.1	0.39	8 08
15.13 12	63.1	0.39	5 43
17.54 6	63.3	0.41	4 11
18.53 3	63.4	0.43	5 11
17.86 3	63.5	0.44	2 39
15.13 12	63.6	0.45	7 51
17.87 3	63.8	0.47	13 49
17.50 3	63.9	0.49	8 55
17.03 6	64.1	0.51	12 42
15.62 10	64.2	0.52	12 04
12.76 14	64.2	0.52	2 21
18.63 3	64.3	0.54	4 01
16.14 9	64.5	0.56	4 48
16.68 6	64.6	0.57	13 26
17.72 5	64.7	0.59	11 03
17.10 6	65.0	0.63	12 34

241—300			
Mag.	α 24^{m}	x	$y+10'$
	s	′	′ ″
18.17 5	5.2	0.65	6 05
18.69 3	5.3	0.66	5 01
17.57 5	5.3	0.66	4 40
18.58 3	5.4	0.67	1 23
16.81 6	5.5	0.69	1 04
16.68 6	5.6	0.70	13 30
17.60 5	5.7	0.71	11 19
17.85 5	5.8	0.72	7 46
16.37 8	5.9	0.74	6 59
18.36 3	5.9	0.74	14 20
17.55 3	5.9	0.74	3 24
18.62 3	6.1	0.76	1 18
16.38 8	6.3	0.79	3 10
16.70 8	6.5	0.81	3 54
17.51 5	6.7	0.84	12 44
18.73 3	6.7	0.84	5 41
15.33 11	6.8	0.85	9 42
16.92 8	7.1	0.89	9 07
17.73 3	7.4	0.92	10 29
17.55 5	7.4	0.92	12 29
17.51 4	7.4	0.92	7 11
18.83 3	7.4	0.93	6 58
17.59 6	7.5	0.94	8 15
18.49 3	7.5	0.94	10 00
17.84 5	7.7	0.96	11 38
17.60 5	7.9	0.99	1 01
16.46 8	8.2	1.02	2 34
16.46 7	8.3	1.03	13 08
17.08 6	8.3	1.03	10 00
17.72 5	8.5	1.06	9 05
11.93 11	8.8	1.09	12 16
18.64 1	8.7	1.09	0 09
17.23 6	9.0	1.13	3 31
17.71 5	9.1	1.13	13 21
16.68 6	9.0	1.13	6 02
16.33 8	9.3	1.15	14 29
15.80 9	9.2	1.15	9 17
18.54 3	9.2	1.15	1 45
17.34 6	9.5	1.19	4 31
16.89 6	9.6	1.20	4 08
18.22 3	9.9	1.22	10 53
18.12 3	10.0	1.24	13 28
18.75 2	10.3	1.28	14 35
17.73 5	10.3	1.29	4 48
16.35 10	10.3	1.29	2 20
17.58 6	10.6	1.31	13 44
17.67 6	10.6	1.32	8 26
16.88 6	10.8	1.35	5 32
18.93 3	11.0	1.37	7 31
17.68 5	11.0	1.38	9 36
17.55 5	11.1	1.39	9 14
17.74 3	11.4	1.41	13 10
18.05 4	11.4	1.43	2 08
18.66 2	11.6	1.44	10 57
17.43 5	11.7	1.46	8 15
17.11 5	12.2	1.51	13 16
17.84 5	12.2	1.52	4 57
17.37 6	12.4	1.55	5 21
18.99 3	12.6	1.58	6 24
17.28 6	12.9	1.60	13 47

25 prec. + 40.s1, + 6′ 29″

301—360					361—420					421—480					481—540					541—600				
Mag.		α 24^{m}	x	$y+10'$	Mag.		α 24^{m}	x	$y+10'$	Mag.		α 24^{m}	x	$y+10'$	Mag.		α 24^{m}	x	$y+10'$	Mag.		α 24^{m}	x	$y+10'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
18.51	3	12.9	1.61	3 52	18.74	3	21.9	2.73	10 49	15.94	11	29.9	3.74	5 00	18.20	5	40.8	5.07	7 45	17.30	5	47.9	5.97	0 24
17.90	3	13.0	1.62	1 01	17.57	5	22.0	2.75	4 21	17.19	6	30.5	3.80	7 48	17.52	6	41.0	5.09	12 01	17.65	3	48.4	6.02	8 46
16.91	4	13.0	1.62	3 30	17.11	8	22.5	2.80	7 10	14.46	15	30.7	3.81	13 58	14.69	13	40.8	5.09	3 43	18.00	3	48.5	6.03	13 31
18.03	3	13.0	1.62	7 47	14.42	15	22.6	2.81	11 49	18.68	3	30.8	3.82	11 02	18.41	5	41.2	5.13	5 55	18.75	3	48.6	6.06	1 19
16.77	6	13.1	1.63	10 15	17.48	3	22.6	2.82	2 49	17.22	6	31.1	3.86	13 44	16.88	6	41.1	5.13	0 23	18.43	2	48.8	6.07	9 23
15.59	10	13.2	1.64	9 32	16.11	7	22.7	2.82	8 59	17.65	5	31.1	3.87	5 48	18.81	3	41.2	5.14	4 38	18.70	3	48.9	6.08	13 15
16.09	10	13.5	1.68	6 28	16.05	6	23.4	2.91	10 49	17.62	3	31.0	3.88	3 41	16.60	5	41.3	5.15	3 27	18.06	3	48.9	6.09	7 55
18.38	3	13.9	1.74	0 50	17.52	6	23.6	2.94	6 54	16.75	8	31.5	3.94	0 27	17.57	5	41.5	5.15	14 47	18.86	3	49.0	6.10	8 21
18.93	3	14.2	1.76	7 31	19.01	3	23.6	2.94	6 46	16.71	6	31.9	3.96	12 09	18.76	2	41.5	5.18	4 46	17.89	3	49.1	6.10	15 00
18.45	3	14.2	1.76	7 12	17.66	5	23.7	2.95	8 58	18.18	5	31.9	3.97	5 56	17.58	6	41.8	5.19	13 20	16.81	6	49.3	6.12	10 18
18.77	2	14.2	1.76	12 11	15.77	10	23.8	2.96	7 24	13.40	14	31.9	3.97	6 02	17.83	6	41.8	5.20	9 36	17.23	6	49.2	6.12	6 55
18.49	3	14.5	1.80	11 22	17.87	5	23.9	2.97	9 29	18.59	3	32.0	3.98	10 20	16.10	10	41.9	5.21	6 36	17.61	3	49.3	6.14	8 30
17.07	6	14.7	1.82	12 23	17.78	5	23.8	2.97	2 01	17.33	5	32.4	4.03	11 58	16.71	8	42.0	5.21	12 34	18.66	3	49.5	6.18	1 42
17.90	3	14.7	1.82	7 12	17.71	6	23.9	2.98	5 27	17.70	5	32.4	4.03	13 33	17.96	3	41.9	5.23	2 41	17.85	5	49.7	6.19	8 22
17.57	3	15.0	1.86	14 00	18.80	3	24.0	3.00	3 38	17.52	5	32.4	4.04	5 25	15.51	10	42.4	5.27	6 58	18.18	3	49.9	6.20	10 07
18.64	3	15.1	1.87	11 09	18.60	3	24.3	3.02	6 15	18.19	3	32.3	4.04	4 36	17.91	3	42.5	5.27	13 04	18.04	5	49.9	6.21	5 42
17.57	3	15.3	1.90	10 54	17.63	4	24.3	3.04	4 30	17.72	5	32.9	4.10	9 52	15.82	9	42.7	5.30	12 19	17.44	4	50.0	6.21	14 48
18.35	3	15.3	1.90	10 33	16.87	6	24.6	3.05	10 16	17.64	5	33.0	4.12	0 43	17.89	5	42.9	5.32	10 56	15.65	10	49.9	6.22	3 28
17.37	5	15.3	1.90	10 18	17.59	5	24.5	3.06	3 16	16.66	6	33.2	4.13	11 01	17.51	6	42.7	5.32	3 32	17.66	3	50.2	6.24	13 08
17.72	5	15.7	1.95	7 02	15.37	11	24.5	3.06	1 58	16.80	6	33.3	4.14	11 35	18.28	2	42.9	5.32	14 29	16.61	8	50.2	6.24	12 30
16.67	6	15.9	1.98	5 20	16.09	8	25.3	3.14	10 16	17.77	4	33.4	4.16	8 37	17.58	6	42.8	5.34	4 21	18.64	2	50.3	6.28	3 28
16.99	6	16.2	2.01	5 52	18.94	3	25.5	3.19	4 41	17.98	3	33.6	4.19	8 59	18.15	5	42.9	5.34	5 14	18.15	5	50.4	6.29	3 11
17.15	6	16.2	2.01	12 01	17.60	5	25.7	3.20	7 31	19.07	3	33.9	4.23	6 24	18.43	3	43.1	5.36	7 31	17.51	6	50.4	6.29	0 49
17.62	5	16.3	2.03	13 16	18.39	3	25.9	3.22	9 41	18.25	3	34.0	4.23	10 19	17.11	8	43.1	5.37	4 52	15.41	10	50.7	6.32	4 42
17.46	5	16.7	2.08	13 25	17.32	6	25.9	3.22	6 03	17.12	8	34.0	4.24	6 10	17.92	3	43.3	5.39	7 52	18.32	3	50.8	6.33	4 19
17.05	6	16.8	2.10	3 39	18.15	3	25.8	3.23	3 09	18.11	5	34.7	4.33	8 04	16.48	8	43.3	5.39	9 51	18.56	2	50.8	6.33	9 17
17.14	6	17.1	2.14	0 09	18.24	2	26.2	3.25	14 25	17.96	5	34.7	4.33	8 12	17.61	5	43.5	5.41	5 17	18.11	3	51.0	6.34	11 21
18.37	5	17.2	2.14	5 08	18.99	3	26.2	3.27	4 36	17.38	3	34.8	4.34	5 02	18.19	4	43.5	5.41	5 15	17.51	3	51.2	6.36	13 21
19.03	2	17.2	2.14	6 27	15.27	11	26.3	3.29	3 23	17.73	3	34.9	4.35	9 01	17.83	5	43.6	5.42	6 02	16.54	9	51.2	6.37	8 42
18.58	3	17.4	2.17	1 16	17.59	6	26.6	3.30	11 53	16.95	6	35.3	4.39	13 54	18.12	3	43.7	5.44	9 01	18.66	2	51.2	6.38	7 39
16.42	7	17.5	2.18	7 26	14.42	11	26.5	3.30	9 29	17.16	6	35.2	4.40	1 51	16.66	8	43.9	5.47	2 32	17.95	3	51.3	6.38	13 49
13.49	13	17.5	2.18	13 07	15.85	10	26.5	3.31	1 23	17.39	5	35.6	4.42	10 50	18.46	3	44.1	5.48	13 58	16.26	8	51.4	6.39	14 05
18.88	3	17.6	2.19	6 41	17.95	5	26.8	3.32	10 29	18.55	3	35.4	4.43	2 17	17.34	4	44.3	5.52	2 47	17.68	5	51.3	6.39	6 32
16.94	6	17.7	2.20	6 51	17.67	5	26.8	3.32	12 20	15.61	11	35.8	4.45	12 44	17.29	6	44.4	5.54	1 41	17.45	5	51.6	6.42	5 50
18.65	3	17.9	2.22	8 59	17.51	6	26.8	3.32	12 56	18.39	3	35.7	4.46	1 34	15.51	10	44.6	5.56	3 18	16.31	9	51.6	6.44	4 35
17.65	3	17.8	2.22	1 42	**10.08w**	**5**	**26.9**	**3.35**	**6 35**	18.73:	1	35.8	4.48	2 31	15.41	10	44.6	5.56	3 40	17.39	6	51.9	6.47	0 06
18.08	3	17.9	2.23	14 56	16.71	6	27.1	3.36	14 43	17.66	5	36.0	4.50	0 21	18.09	3	44.8	5.56	12 02	17.76	3	52.1	6.48	14 59
18.47	3	18.0	2.24	13 21	16.56	9	27.0	3.37	0 38	17.61	3	36.2	4.53	4 11	15.80	11	44.9	5.58	13 26	15.32	11	52.8	6.56	11 09
17.09	6	18.1	2.25	14 23	18.12	3	27.0	3.37	3 01	17.05	8	36.6	4.57	2 52	16.83	8	45.1	5.60	10 12	14.68	13	52.8	6.57	7 03
16.73	8	18.0	2.25	3 14	18.55	3	27.2	3.39	9 46	18.39	3	36.8	4.58	10 40	17.87	3	45.0	5.60	7 54	17.91	5	53.0	6.59	14 08
17.62	5	18.1	2.25	9 06	17.98	5	27.5	3.41	10 29	17.64	3	36.8	4.60	1 41	17.87	5	45.1	5.61	5 21	18.02w	2	53	6.6	13 00
18.62	2	18.3	2.27	11 54	16.06	8	27.7	3.44	14 29	18.18	5	36.9	4.60	5 39	18.54	1	45.2	5.61	12 35	18.33	3	53.2	6.61	10 18
14.89	13	18.3	2.29	3 38	18.26	3	27.6	3.44	5 27	17.92	5	37.1	4.63	6 16	17.00	6	45.3	5.63	11 25	17.15	6	53.6	6.67	5 50
17.37	7	18.4	2.29	8 32	17.67	6	27.7	3.45	5 15	18.96	2	37.2	4.64	8 17	16.08	11	45.3	5.64	5 51	17.47	5	53.6	6.69	4 00
16.92	4	18.6	2.33	4 21	17.17	6	27.9	3.46	13 16	17.78	5	37.1	4.64	0 48	17.96	5	45.2	5.64	2 36	18.06	3	54.0	6.73	7 10
18.77	3	18.8	2.34	8 42	18.69	2	28.2	3.50	11 45	18.52	3	37.4	4.65	11 55	16.25	10	45.3	5.65	0 19	17.41	6	54.2	6.74	11 42
18.17	3	19.1	2.37	12 06	14.86	12	28.4	3.52	13 07	18.51	3	37.4	4.65	13 53	18.32	3	45.7	5.68	10 39	16.95	5	54.2	6.75	8 18
13.21	12	19.4	2.41	6 08	16.81	8	28.3	3.53	5 03	16.60	9	38.0	4.73	12 25	18.27	3	46.0	5.71	13 58	17.41	5	54.5	6.77	11 07
17.68	4	19.6	2.44	9 39	17.69	5	28.3	3.54	4 58	15.10	12	38.1	4.74	14 17	18.16	3	46.1	5.72	13 21	18.59	3	54.3	6.78	0 54
17.88	5	19.5	2.44	4 51	18.68	3	28.4	3.55	3 52	16.99	6	37.9	4.74	1 17	16.31	7	46.2	5.74	13 40	17.58	6	54.5	6.80	2 11
16.45	6	19.6	2.44	13 52	16.42	7	28.6	3.55	12 43	15.95	8	38.4	4.79	9 58	17.41	5	46.2	5.76	5 00	16.75	4	54.8	6.81	11 09
18.26	3	19.9	2.48	14 46	13.36	14	28.7	3.57	5 53	16.30	9	38.6	4.83	0 58	18.05	5	46.3	5.78	4 38	17.14	6	54.8	6.82	8 16
15.71	9	20.0	2.50	4 12	13.21	15	28.6	3.57	4 00	16.77	6	39.0	4.85	10 06	17.75	5	46.5	5.79	5 28	18.51	3	54.9	6.83	13 59
18.33	3	20.2	2.51	8 16	14.92	13	29.3	3.64	13 41	18.48	3	39.3	4.90	7 07	17.21	6	46.7	5.80	11 17	18.32	3	54.8	6.84	4 00
17.12	4	20.2	2.53	0 49	13.63	14	29.5	3.66	11 19	17.04	6	39.3	4.91	0 40	18.73	1	46.5	5.80	4 18	17.94	5	55.2	6.87	8 45
18.01	5	20.6	2.56	5 21	17.60	5	29.4	3.68	2 47	16.95	6	39.5	4.91	10 59	12.35	12	46.9	5.85	0 18	17.83	5	55.5	6.91	7 06
17.94	5	21.2	2.64	8 15	17.46	4	29.7	3.69	14 43	17.88	5	39.6	4.93	6 09	15.20	12	47.3	5.88	10 11	17.53	5	55.4	6.91	0 11
17.05	6	21.4	2.66	9 21	18.13	3	29.9	3.71	11 43	18.20	3	40.3	5.01	6 51	18.72	3	47.7	5.92	11 20	17.94	5	55.5	6.92	4 41
18.93	3	21.5	2.69	4 13	16.59	9	29.7	3.71	4 29	17.57	5	40.4	5.01	10 52	18.28	5	47.5	5.93	4 38	16.54	7	55.6	6.92	8 35
18.41	3	21.9	2.72	14 16	16.66	6	29.9	3.72	6 16	16.13	6	40.3	5.03	3 13	16.09	8	47.5	5.93	0 32	17.42	5	55.8	6.95	7 05

25 prec. + $40^{\mathrm{s}}.2$, + 6′ 30″

601—660				661—720				721—780				781—819			
Mag.	α 24^m	x	$y+10'$	Mag.	α 25^m	x	$y+10'$	Mag.	α 25^m	x	$y+10'$	Mag.	α 25^m	x	$y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
11.69 8	55.8	6.95	9 55	17.31 6	5.7	8.16	14 36	17.98 5	13.7	9.17	5 13	18.31 2	23.5	10.37	14 38
18.16 3	55.7	6.95	4 09	16.72 7	5.8	8.17	13 40	18.15w 2	14	9.2	6 00	16.51 8	23.7	10.40	13 33
14.91 12	55.9	6.98	0 23	16.21 8	5.6	8.17	6 03	18.39 3	14.1	9.20	11 24	17.63 5	24.0	10.44	10 38
17.42 5	55.9	6.98	3 28	16.15 9	5.6	8.17	8 16	15.44 10	14.0	9.21	5 01	18.38 3	23.6	10.44	0 23
17.32 5	56.0	6.98	5 11	17.81 4	5.8	8.21	3 34	16.11 11	13.9	9.22	2 39	17.46 5	23.7	10.45	1 41
18.43 3	56.1	6.99	5 41	17.22 6	6.0	8.22	7 20	15.85 10	13.9	9.22	3 53	17.62 5	24.0	10.46	5 54
17.49w 2	56	7.0	9 30	16.65 5	6.1	8.24	9 41	17.52 5	13.9	9.23	0 50	16.00 10	24.1	10.47	8 38
17.45 5	56.2	7.00	8 46	18.61 3	6.7	8.32	4 48	16.35 8	14.4	9.26	9 50	16.97 6	23.9	10.48	1 14
17.43 6	56.1	7.00	2 30	16.34 8	7.1	8.34	14 54	16.31 8	14.2	9.26	2 56	16.44 9	24.3	10.53	0 11
17.42 6	56.4	7.04	2 33	17.60 5	7.1	8.38	2 14	17.61 5	14.4	9.29	4 25	16.60 8	24.5	10.55	2 49
17.77 5	56.7	7.04	14 58	16.42 6	7.9	8.44	14 22	16.77 7	14.4	9.29	3 47	15.17 12	25.1	10.60	6 51
18.51 3	57.3	7.11	14 31	16.19 10	8.0	8.45	10 04	17.43 5	14.7	9.30	5 43	17.41 6	25.3	10.60	12 56
17.90 5	57.2	7.13	6 51	16.95 6	8.0	8.45	14 07	14.49 15	14.9	9.30	12 46	18.15 1	25.5	10.63	14 06
18.36 3	57.2	7.14	1 28	16.74 6	8.0	8.45	13 56	17.96 3	15.1	9.33	10 25	15.26 11	25.3	10.63	9 54
17.74 4	57.5	7.14	14 04	18.05 1	8.1	8.47	9 45	16.35 7	15.5	9.37	10 37	17.38 3	25.2	10.64	0 52
17.65 3	58.2	7.22	12 50	18.62 3	7.9	8.48	4 48	16.96 6	15.1	9.37	2 29	17.50 3	25.5	10.67	0 49
17.54 3	58.0	7.22	5 56	18.64 1	8.0	8.49	2 36	17.66 5	15.1	9.38	0 44	14.48 13	25.7	10.68	10 00
17.64 5	58.1	7.24	5 25	18.47 3	8.2	8.49	6 55	18.56 3	15.5	9.38	14 18	17.69 5	25.8	10.71	2 55
18.45 2	58.3	7.24	13 38	16.81 6	8.2	8.49	8 56	18.14 3	15.5	9.40	8 46	16.33 7	26.3	10.73	11 55
15.81 9	58.5	7.26	10 36	17.05 6	8.5	8.52	9 41	17.15 5	15.5	9.42	3 19	16.85 6	25.9	10.73	2 12
17.68 5	58.4	7.28	9 55	18.06 3	8.3	8.52	2 03	17.49 5	16.0	9.44	13 35	17.15 6	26.0	10.74	0 48
18.65 3	58.7	7.32	4 51	14.55 15	8.3	8.52	3 33	17.47 4	16.1	9.45	10 42	16.93 6	26.2	10.74	8 00
14.44 15	58.8	7.33	8 59	18.02 3	8.6	8.53	13 48	18.39 3	15.9	9.48	4 31	15.78 11	26.4	10.76	5 14
18.97 2	59.4	7.38	14 01	16.99 6	8.6	8.54	9 17	18.44 2	16.5	9.52	9 00	18.78 2	26.4	10.76	7 32
15.86 11	59.7	7.41	11 27	17.93 5	8.8	8.59	3 14	18.25 3	16.9	9.58	7 22	17.99 3	26.5	10.78	7 03
17.46 5	59.9	7.46	8 05	17.19 5	9.2	8.61	9 04	18.07 3	17.4	9.61	12 23	16.97 6	26.3	10.78	0 30
16.54 6	59.9	7.46	7 53	18.09 3	9.3	8.63	8 03	18.05 2	17.5	9.63	13 09	17.01 6	26.6	10.79	6 18
18.78 3	60.4	7.50	13 29	17.20 3	9.4	8.63	10 36	18.38 3	17.5	9.63	14 17	17.53 5	26.6	10.81	3 14
18.59 3	60.2	7.50	6 15	18.19 3	9.4	8.64	7 16	15.55 11	17.3	9.63	5 41	18.63 3	26.9	10.83	6 45
18.63 3	60.4	7.52	8 15	18.32 3	9.7	8.67	8 55	17.07 6	17.5	9.65	7 51	18.35 3	27.2	10.84	10 30
17.06 6	60.7	7.54	14 22	17.39 6	9.5	8.67	2 18	17.22 5	17.8	9.69	6 17	15.73 9	26.9	10.85	3 27
17.56 5	60.6	7.56	1 00	18.44 3	9.9	8.72	4 16	18.62 3	18.1	9.73	5 26	18.07 3	27.5	10.87	13 05
17.55 5	60.7	7.58	4 50	18.29 3	10.1	8.72	9 03	17.16 6	18.0	9.74	3 05	13.05 16	27.2	10.89	2 13
17.37 5	60.8	7.59	4 39	17.87 5	10.2	8.72	10 28	17.86 2	18.7	9.78	12 43	16.64 9	27.7	10.90	12 38
18.17 3	61.4	7.65	5 05	17.63 5	10.2	8.73	14 09	15.70 11	19.0	9.81	10 44	14.47 13	27.5	10.90	9 42
16.36 8	61.5	7.67	1 49	17.29 5	10.0	8.74	3 31	15.60 11	19.1	9.83	10 58	16.34 7	27.6	10.91	9 23
17.49 3	61.6	7.68	8 28	16.21 8	10.3	8.75	6 55	14.56 13	19.2	9.84	12 49	13.94 15	27.5	10.92	2 02
18.02 3	61.7	7.69	6 27	16.86 6	10.3	8.75	7 19	14.81 13	19.3	9.87	9 36	17.26 5	28.1	10.98	5 18
14.32 14	61.9	7.69	10 19	17.43 5	10.6	8.81	0 47	17.38 5	19.2	9.89	3 48	17.63 3	28.1	10.98	8 22
15.43 11	61.9	7.72	0 53	18.50 3	10.9	8.82	7 48	17.20 5	19.3	9.90	3 54				
18.39 3	62.2	7.72	14 03	17.56 5	10.9	8.83	5 35	18.50 3	20.1	9.97	6 53				
16.95 6	62.5	7.76	11 09	16.80 6	11.1	8.85	7 29	16.36 7	20.4	9.99	14 46				
17.87 5	62.6	7.78	10 38	18.50 2	11.1	8.85	8 01	17.13 6	20.5	10.02	6 48				
17.76 5	62.5	7.79	7 25	17.55 5	11.2	8.89	4 15	18.50 3	20.6	10.06	0 41				
17.71 5	62.6	7.81	3 45	18.54 1	11.9	8.93	13 19	18.37 3	21.0	10.09	8 26				
16.37 8	62.6	7.81	0 30	17.43 5	11.8	8.96	1 21	16.12 6	20.9	10.10	2 47				
17.41 5	63.0	7.82	10 44	17.02 6	12.0	8.99	1 51	16.89 6	21.5	10.13	12 20				
15.20 13	63.1	7.84	13 10	18.57 3	12.6	9.01	10 32	16.93 6	21.6	10.14	13 30				
17.39 5	62.8	7.84	4 30	14.89 10	12.6	9.01	10 37	18.71 2	21.9	10.18	13 49				
17.58 5	62.8	7.84	4 35	15.55 10	12.2	9.01	1 16	18.50 2	21.9	10.18	11 22				
17.69 5	63.6	7.94	0 18	17.61 5	12.5	9.05	0 51	17.62 4	22.1	10.20	13 45				
17.05 6	63.7	7.94	5 04	17.46 5	12.7	9.05	9 29	17.90 3	21.8	10.21	3 11				
18.47 3	64.1	7.99	7 11	16.58 5	12.8	9.06	9 23	17.39 5	22.1	10.22	5 04				
18.53 3	64.4	8.00	12 59	16.47 7	13.1	9.08	11 52	17.25 6	21.9	10.22	2 39				
17.19 6	64.6	8.05	9 12	16.92 6	13.5	9.13	14 33	17.38 5	21.9	10.23	4 29				
17.73 5	64.7	8.07	1 21	16.40 9	13.5	9.13	13 23	17.24 5	21.9	10.23	1 22				
17.66 5	65.2	8.10	12 39	17.36 5	13.5	9.13	13 31	17.48 5	22.0	10.24	4 00				
17.74 5	65.4	8.12	11 47	15.97 11	13.3	9.13	8 59	17.67 5	22.4	10.26	6 25				
16.36 5	65.4	8.12	13 15	17.82 5	13.4	9.16	4 53	18.16 3	22.6	10.29	8 45				
16.53 6	65.2	8.12	8 05	18.02 3	13.9	9.17	12 42	17.23 6	22.8	10.34	0 52				

25 prec. + $40^{s}.3$, + 6′ 31″

1s—60s				61s—120s				121s—180s				181s—240s				241s—300s			
Mag.	α 22^m	x	$y+10'$	Mag.	α 23^m	x	$\frac{y+70'}{y+10'}$	Mag.	α 23^m	x	$\frac{y+70'}{y+10'}$	Mag.	α 23^m	x	$\frac{y+70'}{y+10'}$	Mag.	α 24^m	x	$\frac{y+70'}{y+10'}$
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
18.51 2	57	92.2	4.4	16.13 7	15	94.4	12.1	18.06 2	24	95.5	12.2	17.61 2	50	98.7	15.8	16.09 7	10	1.3	15.0
15.54 8	57	92.2	4.6	17.89 2	16	94.5	1.8	16.22 8	25	95.6	58.4	17.27 4	51	98.8	56.2	13.93 14	10	1.3	15.4
17.02 5	57	92.2	5.7	17.30 2	17	94.6	0.0	17.69 2	25	95.6	0.7	17.33 5	50	98.8	16.0	15.69 5	12	1.4	57.8
17.42 5	57	92.2	7.8	17.56 3	17	94.6	0.5	18.58 2	25	95.6	3.6	17.50 2	50	98.8	16.3	17.43 2	12	1.5	58.3
15.98 8	58	92.3	4.8	11.41 8	17	94.6	1.6	16.69 5	24	95.6	4.6	17.16 5	52	99.0	56.2	17.77 4	12	1.5	15.5
17.69 2	58	92.3	5.5	17.28 5	17	94.6	2.7	17.73 2	25	95.6	5.0	17.93 2	52	99.0	57.0	17.79 2	12	1.5	15.9
18.30 2	58	92.3	6.2	17.74 2	17	94.6	7.1	18.47 2	25	95.6	10.0	17.44 5	52	99.0	58.8	15.68 9	13	1.6	57.0
17.51 4	58	92.3	8.0	16.32 4	16	94.6	7.6	17.57 3	26	95.7	4.3	18.52 2	52	99.0	59.4	16.87 6	13	1.6	58.6
18.17 2	59	92.4	6.4	15.49 9	16	94.6	10.8	18.13 2	26	95.7	4.4	17.23 5	52	99.0	15.0	15.03 9	13	1.6	17.0
16.37 8	61	92.7	6.5	17.81 2	18	94.7	2.8	17.89 2	26	95.7	4.9	17.70 2	52	99.0	16.3	18.47 2	13	1.6	17.2
17.49 4	61	92.7	9.8	16.64 5	18	94.7	3.5	16.65 4	25	95.7	8.0	17.52 4	53	99.1	59.2	17.18 5	14	1.8	56.9
17.95 2	62	92.8	3.8	17.67 2	18	94.7	3.9	17.29 3	26	95.8	0.3	17.57 2	54	99.2	57.1	18.39 2	14	1.8	16.6
15.69 6	62	92.8	5.6	18.51 2	17	94.7	5.7	18.53 2	26	95.8	6.1	15.73 9	54	99.3	56.5	15.39 9	16	2.0	57.4
18.43 2	63	92.9	8.2	17.95 2	17	94.7	10.1	18.83 2	26	95.8	9.7	15.75 5	54	99.3	59.4	13.30 9	16	2.0	16.0
18.26 2	63	92.9	9.0	18.51 2	18	94.8	3.2	17.56 2	26	95.8	11.2	17.14 5	54	99.3	15.3	17.89 2	17	2.1	56.5
16.39 7	64	93.0	2.8	17.16 5	18	94.8	4.2	16.81 5	26	95.8	14.2	14.12 13	55	99.4	58.6	18.76 2	17	2.1	57.4
17.35 4	64	93.0	3.0	17.09 5	18	94.8	4.8	17.23 3	27	95.9	0.8	17.48 4	56	99.4	59.0	18.49 2	17	2.1	58.2
17.14 5	64	93.0	5.0	16.48 7	19	94.8	7.8	15.59 9	27	95.9	9.3	17.05 5	55	99.4	17.2	18.43 2	17	2.1	59.4
14.45 13	64	93.0	7.9	17.29 4	18	94.8	9.4	17.69 2	27	95.9	12.2	17.82 4	56	99.5	59.6	17.71 2	17	2.1	16.7
18.39 2	65	93.1	6.2	17.17 5	18	94.8	11.0	17.99 2	27	95.9	12.6	17.68 3	56	99.5	15.3	16.65 5	18	2.2	56.8
17.79 2	65	93.2	6.2	17.55 4	19	94.9	1.3	17.16 4	27	95.9	13.1	15.17 9	57	99.6	56.8	18.44 2	18	2.2	56.9
17.49: 5	65	93.2	8.9	17.26 5	19	94.9	3.9	17.47 4	27	95.9	13.9	18.17 2	57	99.6	57.4	17.33 2	18	2.2	17.8
17.19 4	65	93.2	11.2	14.81 11	19	94.9	5.6	17.49 2	28	96.0	58.4	18.66 2	57	99.6	59.1	17.59 2	20	2.4	56.2
17.14 5	66	93.3	4.2	16.91 5	19	94.9	7.3	18.57 2	27	96.0	8.9	17.90 2	57	99.6	17.0	17.45 5	20	2.4	58.2
16.17 6	66	93.3	4.6	16.95 5	19	94.9	8.4	17.69: 4	28	96.0	13.4	18.09 2	58	99.7	57.5	18.53 2	19	2.4	59.8
17.73 4	66	93.3	6.5	17.13 4	19	94.9	11.9	17.54 2	30	96.3	58.6	12.36 11	58	99.7	15.4	15.38 4	20	2.5	16.0
16.64 6	67	93.4	6.4	17.21 5	20	95.0	0.5	17.65 3	31	96.4	58.7	17.58 4	59	99.8	56.4	18.19 2	21	2.6	57.9
18.30 2	67	93.4	6.5	16.97 5	20	95.0	3.0	16.21 7	32	96.4	59.4	17.41 4	58	99.8	58.6	18.38 2	21	2.6	15.7
18.71 2	67	93.4	8.5	15.56 7	20	95.0	4.0	18.04 2	31	96.4	59.8	14.69 10	59	99.9	15.9	17.81 2	22	2.7	57.2
17.59 2	67	93.4	8.8	17.12 5	20	95.0	9.0	17.91 2	34	96.7	59.7	17.91 2	60	0.0	59.0	18.53 2	22	2.8	57.1
14.53 11	67	93.4	11.4	18.21 2	20	95.0	10.6	18.05 2	35	96.8	59.4	16.87 5	60	0.0	16.9	18.04 2	23	2.8	58.2
17.70 2	68	93.6	2.4	17.50 4	20	95.0	12.4	17.37 2	34	96.8	0.0	18.33 2	61	0.1	15.2	16.91 5	23	2.8	59.6
18.11 2	69	93.6	4.6	16.34 8	21	95.1	4.3	18.01 2	34	96.8	15.8	18.15 2	61	0.1	15.6	17.96 2	23	2.8	16.1
16.47 7	68	93.6	7.8	18.79 2	21	95.1	7.0	18.33 2	35	96.9	58.0	12.43 9	61	0.1	16.8	15.58 9	23	2.8	16.9
17.20 5	70	93.8	0.4	18.13 2	21	95.1	11.2	13.26 14	36	97.0	59.8	15.70 9	62	0.2	56.0	16.74 5	23	2.9	56.0
18.62 2	70	93.8	4.2	18.60 2	21	95.1	14.4	18.03 2	37	97.1	58.5	18.19 2	61	0.2	56.4	17.02 5	24	3.0	55.9
17.58 4	70	93.8	7.6	16.87 5	22	95.2	0.5	17.18 5	37	97.1	59.9	17.93 2	62	0.2	58.2	17.81 4	24	3.0	58.7
15.34 10	70	93.8	10.8	16.19 6	22	95.2	0.6	18.43 2	38	97.2	57.4	18.17 2	62	0.3	56.0	15.67 8	24	3.0	58.8
18.51 2	70	93.8	11.1	18.51 2	22	95.2	3.2	17.29 4	38	97.2	0.0	17.55 2	62	0.3	59.0	17.99 2	24	3.0	15.1
17.08 5	71	93.9	6.6	17.29 5	21	95.2	4.4	16.79 5	37	97.2	15.6	17.44 3	63	0.4	17.4	18.17 2	24	3.0	15.2
16.99 5	71	93.9	6.7	18.77 2	22	95.2	4.8	17.59 4	38	97.3	58.4	15.91 8	64	0.5	56.5	17.39 3	24	3.0	15.8
13.92 12	72	94.0	8.6	16.34 6	22	95.2	5.2	18.16 2	40	97.4	57.2	15.18 8	64	0.6	55.6	17.29 4	24	3.0	16.1
17.44 4	72	94.0	9.0	18.28 2	22	95.2	5.3	17.76 2	40	97.5	59.5	17.50 4	65	0.6	15.3	14.97 9	24	3.0	16.8
14.84 11	72	94.0	10.0	17.89 2	22	95.2	5.8	14.28 13	41	97.6	58.4	17.52 2	65	0.6	15.8	17.30 4	25	3.1	15.8
13.98 13	72	94.0	11.5	17.70 3	22	95.2	6.0	18.17 2	41	97.6	59.1	18.04 2	66	0.7	57.8	17.47 4	26	3.2	55.4
17.00 5	73	94.1	5.8	15.97 7	21	95.2	8.6	18.00 2	41	97.6	0.0	18.05 2	66	0.7	58.2	18.86 2	26	3.2	15.4
17.69 2	73	94.1	8.2	14.09 12	21	95.2	9.8	16.76 5	40	97.6	16.4	15.78 9	66	0.8	57.0	18.37 2	26	3.2	16.2
17.49 4	74	94.2	4.0	16.84 5	21	95.2	10.4	17.13 4	42	97.7	58.1	18.37 2	67	0.8	59.6	17.45 5	26	3.3	59.7
17.94 2	73	94.2	5.2	18.00 2	21	95.2	10.8	16.70 5	43	97.9	59.8	18.45 2	66	0.8	15.6	18.28 2	28	3.5	16.5
17.52 3	73	94.2	5.6	17.40 3	21	95.2	11.6	16.33 8	44	98.0	59.4	17.08 5	66	0.8	17.6	15.63 8	29	3.6	55.9
16.22 8	73	94.2	7.0	15.92 9	21	95.2	12.0	17.61 3	43	98.0	15.0	18.93 2	67	0.9	57.0	18.35 2	30	3.7	58.5
15.91 8	73	94.2	11.8	17.35 3	21	95.2	13.1	18.07 2	44	98.0	15.9	18.63 2	67	0.9	17.1	17.13 5	30	3.7	59.0
15.83 9	73	94.2	12.8	18.32 2	21	95.2	13.2	17.93 2	45	98.1	58.6	15.52 9	68	1.0	58.8	17.08 5	30	3.7	15.4
16.96 5	74	94.3	2.5	18.47 2	22	95.3	59.5	17.41 5	45	98.1	15.9	18.57 2	69	1.1	55.6	17.40 4	30	3.8	58.3
17.52 3	74	94.3	5.6	16.93 5	22	95.3	4.3	17.95 2	46	98.2	57.8	18.33 2	69	1.1	56.9	18.53 2	30	3.8	58.7
17.25 5	74	94.3	7.0	17.20 5	22	95.3	4.8	17.23 5	46	98.2	58.9	18.37 2	69	1.1	59.2	18.71 2	30	3.8	15.7
17.23 2	74	94.3	12.6	18.37 2	23	95.4	11.8	17.59 4	46	98.3	15.2	16.95 6	70	1.2	58.7	18.09 2	31	3.8	15.8
18.31 2	74	94.3	13.2	17.03 5	24	95.5	1.4	17.93 3	47	98.4	59.4	17.36 2	70	1.2	59.7	14.24 13	31	3.9	57.0
16.57 7	75	94.4	2.1	16.05 6	24	95.5	5.6	17.66 4	47	98.4	15.2	15.79 8	70	1.2	17.6	18.35 2	31	3.9	15.3
17.76 2	75	94.4	3.8	18.83 2	24	95.5	9.0	18.29 2	50	98.7	56.4	16.72 7	70	1.3	56.7	17.75 2	32	4.0	56.1

25 prec. + $40^{s}.1$, + 6′ 29″

301s—360s

Mag.		α 24^{m}	x	$y+70'$ / $y+10'$
		s	'	'
16.66	6	32	4.0	56.2
10.75	5	32	4.0	57.6
18.73	2	32	4.0	58.5
18.41	2	32	4.0	16.7
18.00	2	32	4.0	16.8
18.21	2	32	4.0	17.0
18.60	2	32	4.0	17.8
18.35	2	33	4.1	16.5
16.15	6	34	4.2	55.6
17.74	2	34	4.2	55.9
15.41	9	34	4.2	58.6
18.55	2	35	4.3	16.8
18.30	2	36	4.4	59.6
18.11	2	35	4.4	16.5
17.79	2	36	4.5	16.4
16.63	7	37	4.6	15.6
15.13	9	37	4.6	17.4
17.61	4	38	4.7	58.0
16.42	8	38	4.8	15.4
18.30	2	39	4.9	57.5
18.71	2	40	4.9	15.8
16.53	5	41	5.1	56.8
16.65	5	41	5.1	58.0
16.99	5	41	5.1	58.2
14.45	11	41	5.1	59.0
17.49	4	42	5.2	59.0
17.04	5	41	5.2	59.4
15.16	9	42	5.2	15.9
16.81	5	44	5.4	57.2
16.40	5	44	5.4	16.1
17.49	2	44	5.5	59.7
18.19	2	45	5.6	16.7
14.66	10	45	5.6	16.8
16.32	7	45	5.6	17.4
18.06	2	46	5.7	55.8
17.79	2	46	5.7	0.0
18.47	2	46	5.7	15.3
14.59	11	46	5.8	55.4
17.26	5	46	5.8	57.6
16.79	5	46	5.8	16.0
18.96	2	46	5.8	17.4
16.39	7	47	5.9	58.7
16.08	8	48	6.0	55.7
15.68	8	48	6.0	56.2
17.00	5	48	6.0	56.3
16.88	5	48	6.0	56.9
18.17	2	48	6.0	58.2
15.33	8	48	6.0	17.4
17.29	5	49	6.1	56.3
19.01	2	49	6.1	56.9
17.30	2	50	6.2	56.9
18.55	2	50	6.2	16.6
18.38	2	50	6.2	17.4
17.24	5	50	6.3	55.9
16.29	7	52	6.5	58.1
17.57	2	53	6.6	57.3
17.89	2	53	6.6	57.4
17.11	4	53	6.6	16.9
14.11	14	53	6.6	17.1
17.71	2	53	6.7	56.3

361s—420s

Mag.		α 24^{m}	x	$y+70'$ / $y+10'$
		s	'	'
18.19	2	54	6.7	58.9
16.49	5	54	6.7	15.9
16.64	7	55	6.8	56.6
17.85	2	54	6.8	57.0
17.42	4	54	6.8	57.7
17.75	2	54	6.8	58.1
16.98	4	56	6.9	16.0
18.10	2	56	7.0	56.0
18.11	2	56	7.0	58.8
17.92	2	56	7.0	16.4
18.25	2	56	7.1	56.0
16.60	7	58	7.2	57.0
16.63	5	58	7.2	15.4
15.49	8	58	7.2	15.9
14.02	13	60	7.4	59.6
16.16	7	59	7.4	15.9
18.23	2	60	7.5	16.0
17.24	5	61	7.6	56.9
16.36	8	61	7.6	57.5
17.49	2	61	7.6	58.2
15.97	7	62	7.7	59.9
18.93	2	63	7.8	57.7
17.32	5	63	7.8	58.1
18.19	2	63	7.8	58.5
17.30	5	63	7.8	58.7
18.63	2	63	7.9	58.3
17.16	5	64	8.0	56.6
16.25	7	64	8.0	15.6
17.23	5	66	8.2	57.2
17.31	4	66	8.2	58.9
15.37	9	66	8.2	16.7
18.15	2	66	8.3	56.7
16.23	8	68	8.4	59.4
18.14	2	68	8.4	16.3
16.71	5	68	8.5	59.3
16.65	7	70	8.7	59.1
14.27	13	70	8.8	56.7
17.26	5	71	8.8	58.4
15.95	7	71	8.9	56.9
17.71	4	72	8.9	15.3
17.02	5	72	8.9	16.4
18.08	2	72	9.0	58.8
17.12	5	72	9.0	16.3
17.58	2	73	9.1	58.9
17.53	2	74	9.2	58.6
14.90	11	74	9.2	59.7
17.43	4	74	9.2	15.8
17.55	4	74	9.2	16.1
17.74	2	75	9.4	59.7
15.78	7	77	9.6	58.7
17.40	5	77	9.6	15.4
17.21	5	77	9.6	15.7
18.67	2	78	9.7	59.1
16.44	6	78	9.8	59.0
18.69	2	78	9.8	59.5
13.01	13	78	9.8	59.8
16.81	6	79	9.9	59.2
17.18	5	80	10.0	57.8
17.63	2	80	10.0	57.9
15.12	10	81	10.0	15.4

421s—480s

Mag.		α 25^{m}	x	$y+70'$ / $y+10'$
		s	'	'
15.82	9	21	10.0	15.6
18.25	2	21	10.1	59.1
17.85	2	21	10.1	59.9
18.17	2	22	10.2	58.9
18.07	2	22	10.2	59.1
18.35	2	23	10.3	58.8
16.14	7	23	10.4	15.4
18.77	2	25	10.6	15.1
18.67	2	26	10.7	58.5
14.18	11	28	11.0	59.2
18.19	2	29	11.1	0.2
17.89	4	29	11.1	2.5
15.12	10	29	11.1	10.1
18.21	2	29	11.1	11.6
16.39	5	30	11.2	59.8
17.37	4	29	11.2	0.2
15.45	9	30	11.2	2.6
16.47	5	29	11.2	3.8
16.57	5	30	11.2	10.1
17.29	5	30	11.2	10.6
16.46	6	30	11.2	13.5
12.99	13	30	11.2	14.4
17.06	5	30	11.2	14.6
17.91	2	31	11.3	4.9
17.76	4	31	11.3	7.7
17.47	2	31	11.3	9.3
18.34	2	31	11.4	6.0
18.23	2	31	11.4	11.6
17.11	3	31	11.4	13.4
16.35	7	31	11.4	13.9
14.32	12	32	11.5	1.4
17.29	4	32	11.5	1.7
18.13	2	32	11.5	10.7
17.68	4	33	11.6	1.0
17.44	2	33	11.6	12.7
18.33	2	33	11.6	14.0
17.65	2	34	11.7	0.8
18.59	2	34	11.7	3.6
17.67	4	34	11.7	9.6
16.80	5	35	11.8	2.4
16.67	7	35	11.8	4.9
18.33	2	35	11.8	6.9
16.49	8	34	11.8	7.0
17.52	4	35	11.8	7.5
14.77	11	35	11.8	8.2
16.53	8	34	11.8	8.4
18.27	2	35	11.8	12.0
16.46	8	35	11.8	14.0
17.22	4	35	11.9	59.1
18.67	2	35	11.9	0.8
17.65	4	36	11.9	10.0
14.97	8	36	11.9	11.9
15.82	8	36	12.0	0.1
16.98	5	36	12.0	4.3
17.86	2	36	12.0	7.6
15.70	9	36	12.0	7.9
18.28	2	36	12.0	9.0
17.93	2	36	12.0	10.1
16.01	6	36	12.0	10.8
18.33	2	36	12.0	11.0

481s—540s

Mag.		α 25^{m}	x	$y+70'$ / $y+10'$
		s	'	'
16.45	3	36	12.0	11.9
16.82	5	37	12.1	59.3
17.27	2	37	12.1	0.3
18.73	2	37	12.1	5.0
16.34	7	37	12.1	11.1
17.44	4	38	12.2	2.5
17.76	2	38	12.2	3.4
14.61	9	38	12.2	5.2
15.57	8	38	12.2	7.3
17.46	4	38	12.2	7.5
13.87	14	39	12.4	1.5
17.87	2	40	12.4	11.4
18.08	2	40	12.4	11.8
17.51	4	39	12.4	12.0
18.21	2	40	12.4	12.3
17.31	2	40	12.5	0.4
17.91	2	40	12.5	1.2
18.23	2	40	12.5	10.7
16.91	5	41	12.5	11.7
17.41	2	41	12.6	2.3
16.87	4	41	12.6	3.6
17.89	2	42	12.7	0.4
17.63	2	42	12.7	0.7
17.69	4	42	12.7	2.5
17.79	2	42	12.7	11.8
18.28	2	42	12.8	0.5
17.40	4	42	12.8	2.3
17.74	2	43	12.8	2.8
16.96	5	42	12.8	8.4
18.07	2	43	12.8	11.2
17.47	4	44	12.9	6.0
16.49	6	44	12.9	9.7
18.15	2	45	13.0	1.8
17.32	3	44	13.0	3.0
18.05	2	44	13.0	3.2
16.52	7	44	13.0	3.4
16.73	5	45	13.0	5.0
16.96	5	44	13.0	5.9
17.63	2	44	13.0	6.4
17.49	2	44	13.0	6.6
17.44	4	45	13.0	7.8
14.14	14	45	13.0	9.1
13.30	9	45	13.0	9.7
17.43	4	45	13.0	10.0
16.40	7	45	13.0	10.9
18.63	2	45	13.0	11.4
17.58	2	45	13.1	2.6
17.47	2	45	13.1	3.4
18.79	2	45	13.1	5.5
17.21	4	45	13.1	11.6
18.81	2	46	13.2	2.0
17.33	2	46	13.2	3.6
17.78	2	46	13.2	4.0
18.37	2	46	13.2	5.2
16.83	5	46	13.2	5.3
18.65	2	46	13.2	5.7
18.47	2	47	13.3	2.5
17.45	4	47	13.3	7.4
16.63	4	47	13.4	3.4
18.05	2	48	13.4	7.4

541s—568s

Mag.		α 25^{m}	x	$y+10'$
		s	'	'
16.93	4	48	13.4	9.6
15.09	10	48	13.4	11.7
17.53	2	48	13.5	3.8
17.45	2	48	13.5	4.0
15.11	11	48	13.5	5.2
17.29	4	48	13.5	9.1
16.88	5	49	13.5	10.4
18.11	2	48	13.6	2.2
16.90	5	49	13.6	6.8
17.87	2	49	13.6	8.9
17.11	5	50	13.7	6.5
18.25	2	50	13.7	7.2
16.63	5	50	13.7	11.0
17.93	2	51	13.8	4.7
15.49	8	51	13.8	7.1
16.82	5	51	13.8	8.3
15.16	10	51	13.8	9.6
16.62	5	51	13.8	11.0
17.43	4	51	13.9	4.2
16.59	6	51	13.9	5.2
18.39	2	52	13.9	7.7
18.46	2	52	14.0	5.0
17.47	4	52	14.0	5.2
15.02	10	54	14.2	4.4
16.64	6	54	14.2	5.0
17.80	2	56	14.5	8.5
17.27	5	57	14.6	6.1
17.16	5	57	14.6	6.8

25 prec. + $40^{s}.3$, + $6' 31''$

Area 19. Center for 1900: $23^{h}\ 23^{m} + 60°\ 0'$ $(15' \times 15')$

1—60			
Mag.	α 22^{m}	x	y+60′ / y
	s	′	′ ″
14.60 14	2.2	92.76	57 46
14.87 12	1.9	92.76	9 23
15.69 9	2.0	92.78	9 29
16.75 8	2.7	92.86	7 58
16.67 8	2.9	92.88	0 26
18.13 3	3.4	92.95	8 25
17.97 2	3.6	92.96	4 16
18.20 3	4.3	93.03	55 24
15.89 5	4.2	93.04	4 38
16.48 8	4.3	93.06	9 54
17.59 3	4.5	93.09	8 40
16.70 8	4.8	93.09	55 41
14.16 14	4.9	93.10	56 52
18.55 1	4.7	93.11	8 15
15.92 9	5.1	93.16	6 04
17.86w 2	5	93.2	7 00
17.03 5	5.6	93.22	6 21
14.48 13	6.1	93.28	1 44
17.76 3	6.3	93.31	7 47
17.81 3	6.8	93.38	9 11
17.97 3	6.8	93.38	8 46
17.68 3	6.9	93.39	6 46
16.99 5	6.9	93.39	6 48
16.41 8	7.1	93.40	1 19
17.91 3	7.5	93.43	59 40
16.38 8	9.9	93.72	57 22
17.84 3	9.8	93.75	8 32
18.17 3	10.7	93.83	56 14
13.20 17	11.1	93.90	4 52
17.28 4	11.2	93.91	3 45
18.10 3	11.6	93.97	7 27
14.43 14	11.9	94.01	5 08
17.19 5	12.0	94.03	6 32
18.10 3	12.1	94.04	8 11
17.35 5	12.3	94.05	0 30
18.07 3	12.4	94.06	4 01
17.81 3	12.5	94.09	6 48
16.49 8	12.6	94.10	8 08
17.88 3	13.4	94.16	59 24
17.94 3	13.2	94.17	6 27
17.32 4	13.4	94.19	3 39
17.69 3	13.7	94.20	59 36
18.55 1	13.6	94.23	7 50
18.10 3	14.1	94.25	55 17
18.06 2	14.5	94.33	2 59
17.87 3	14.4	94.33	9 37
16.62 8	14.7	94.36	8 39
18.03 2	15.0	94.39	4 39
11.62 16	15.3	94.42	4 32
16.12 9	15.4	94.44	3 35
18.16 3	15.3	94.44	9 10
18.16 3	15.6	94.44	59 00
14.69 13	15.8	94.46	58 28
17.38 5	16.0	94.49	58 17
18.06 2	15.8	94.50	9 42
14.68 13	16.7	94.61	7 13
15.68 9	16.7	94.61	5 57
17.15 5	17.9	94.75	2 59
17.72 3	18.0	94.77	9 07
13.96 15	18.5	94.84	6 57

61—120			
Mag.	α 22^{m}	x	y+60′ / y
	s	′	′ ″
17.89 3	19.0	94.86	58 53
18.07 3	18.9	94.87	1 47
17.64 3	19.1	94.87	55 29
16.79 8	19.2	94.89	55 50
16.76 8	19.5	94.93	57 44
18.64 1	19.7	94.96	58 08
15.02 11	20.1	95.03	9 05
18.33 2	20.2	95.03	4 48
16.47 8	20.4	95.05	55 10
15.73 9	20.9	95.11	56 17
16.72 8	21.0	95.13	59 18
17.78 3	20.9	95.13	7 08
17.20 5	21.3	95.18	6 39
18.44 2	21.8	95.22	59 06
16.33 9	22.4	95.30	58 07
17.96 3	22.4	95.31	6 00
17.96 3	22.7	95.35	7 20
17.15 4	23.4	95.44	9 59
17.12 4	23.6	95.46	9 44
18.34 2	24.2	95.53	56 27
18.33 3	24.2	95.54	8 25
15.59 10	24.6	95.57	4 16
18.74 1	24.8	95.60	3 08
17.92 3	24.9	95.62	7 04
16.51 8	25.8	95.72	2 00
17.03 8	26.9	95.86	3 50
16.98 8	26.9	95.88	5 55
17.03 4	27.4	95.94	5 41
18.34 2	27.6	95.95	55 46
17.24 5	28.4	96.05	56 24
17.76 3	28.3	96.05	7 49
15.60 8	28.6	96.07	2 19
16.69 8	28.7	96.10	9 07
15.02 13	29.0	96.12	2 41
17.95 3	29.0	96.12	3 02
17.22 5	29.0	96.12	3 00
15.14 11	29.6	96.21	5 47
18.11 3	30.1	96.26	0 36
17.09 5	30.4	96.30	55 05
18.43 2	30.5	96.33	6 48
16.67 8	30.7	96.34	56 28
18.39 3	30.9	96.36	59 58
17.01 7	31.5	96.45	6 57
18.19 3	32.1	96.51	55 32
16.16 9	32.2	96.52	56 18
15.30 11	32.1	96.53	8 32
17.10 8	32.6	96.57	59 09
18.83 1	32.9	96.61	4 09
18.08 3	33.2	96.66	6 38
16.36 8	33.3	96.68	5 02
14.03 15	33.4	96.68	59 14
17.28 5	34.4	96.80	55 40
15.67 9	34.7	96.84	4 20
16.88 8	35.0	96.87	3 29
16.93 8	35.4	96.94	5 52
16.91 8	35.8	96.97	57 58
17.03 8	35.8	96.98	59 40
17.92 3	35.8	96.98	4 01
13.99 15	36.9	97.11	4 11
15.49 9	37.0	97.12	2 53

121—180			
Mag.	α 22^{m}	x	y+60′ / y
	s	′	′ ″
15.78 9	37.4	97.18	4 00
18.12 3	37.8	97.24	8 18
17.94 3	37.9	97.25	9 14
17.38 5	38.0	97.25	55 19
18.38 2	38.7	97.34	59 51
17.99 3	38.7	97.34	56 01
18.29 2	38.8	97.35	58 03
17.03 8	39.4	97.42	59 05
15.99 9	39.5	97.44	4 27
16.80 8	39.8	97.48	2 34
15.42 10	39.9	97.49	4 19
18.20 2	39.9	97.49	59 54
18.11 3	40.0	97.50	55 32
18.12 3	39.9	97.50	6 49
17.74 4	40.4	97.55	4 24
16.04 9	40.4	97.55	0 09
17.00 8	40.7	97.59	3 32
18.14 2	41.0	97.62	56 42
18.41 2	41.7	97.71	56 34
16.94* 1	41.8	97.74	5 45
16.94 1	41.8	97.74	5 46
16.23 8	41.9	97.75	9 58
17.85 3	42.1	97.76	58 54
16.92 8	42.5	97.82	7 41
11.55w 15	43.4	97.92	0 10
17.69 3	43.3	97.92	9 29
18.55 1	43.5	97.95	5 35
14.36 13	43.8	97.97	4 51
18.12 3	43.9	97.99	56 09
14.68 14	44.1	98.01	56 36
18.01 3	44.4	98.05	3 51
18.19 3	44.3	98.05	7 57
18.33 2	44.5	98.06	59 18
15.89 9	44.5	98.08	6 54
18.24 3	44.7	98.10	9 35
15.73 8	45.1	98.14	55 57
16.26 8	45.1	98.14	4 23
15.27 11	45.1	98.15	8 02
17.39 3	45.6	98.20	57 12
17.92 3	46.3	98.29	57 50
16.83 6	46.8	98.35	4 31
17.08 8	47.1	98.39	5 25
17.00 8	47.4	98.43	7 40
16.81 8	47.6	98.45	0 45
18.12 3	47.8	98.48	3 40
15.69 8	48.2	98.52	2 25
17.81 3	48.5	98.56	9 50
15.27 11	48.6	98.57	7 35
18.41 2	48.9	98.61	4 22
16.22 9	49.2	98.65	56 25
16.86 8	49.4	98.67	56 43
17.64 3	49.6	98.70	9 18
12.88 16	49.8	98.73	5 37
18.82 2	50.2	98.77	2 24
15.78 9	50.6	98.82	57 37
18.05 3	51.0	98.87	57 22
15.50 9	51.8	98.98	56 04
18.16 3	51.9	98.99	8 13
18.40 2	52.3	99.04	59 59
17.39 4	52.7	99.09	3 26

181—240			
Mag.	α 22^{m}	x	y+60′ / y
	s	′	′ ″
18.14 3	53.1	99.14	6 35
12.73 14	53.9	99.24	5 22
17.92 3	54.2	99.28	55 19
17.81 3	54.8	99.35	1 54
17.66 3	54.9	99.36	6 10
15.42 9	55.2	99.40	58 29
15.86 9	55.6	99.45	1 49
17.70 3	55.6	99.45	55 34
18.27 2	55.7	99.46	6 54
17.84 3	55.7	99.47	9 30
18.13 3	55.7	99.47	7 06
15.33 9	56.4	99.55	5 34
18.32 3	56.6	99.58	55 44
17.60 3	56.9	99.61	8 39
18.07 3	58.2	99.77	57 16
18.74 1	58.5	99.81	1 55
17.76 3	58.8	99.85	8 31
16.71 8	59.0	99.87	57 40
18.13 3	59.0	99.87	0 49
17.53 4	59.2	99.90	6 00
15.47 10	59.6	99.95	6 55
18.64 1	59.8	99.98	9 29
18.06 3	59.9	99.99	9 54
18.71 2	60.3	0.04	59 55
15.15 8	60.5	0.06	2 31
14.40 14	60.6	0.08	6 30
16.98 8	60.6	0.08	6 43
9.36w 8	61.4	0.17	1 21
16.50w 6	62	0.2	1 30
16.34 8	62.2	0.28	56 40
16.95 8	62.6	0.32	59 40
16.09 9	62.8	0.35	7 20
17.35 5	62.9	0.36	8 15
18.51 2	63.6	0.45	57 34
16.80 8	63.8	0.48	5 34
16.86 8	64.0	0.50	56 52
17.88 3	64.2	0.53	2 53
16.81 8	64.6	0.58	2 28
12.70 17	65.0	0.62	8 13
17.37 4	65.0	0.63	58 45
16.62 8	65.0	0.63	55 38
15.81 9	65.5	0.69	57 23
17.46 6	65.6	0.70	1 38
18.01 3	65.9	0.74	6 36
18.17 3	66.1	0.76	55 21
17.88 3	66.1	0.76	9 19
17.16 3	66.2	0.77	2 42
17.46 5	66.6	0.82	8 30
15.56 10	66.6	0.83	59 11
16.39 8	66.8	0.85	9 31
16.87 8	67.0	0.87	3 50
14.76 11	67.2	0.90	57 46
17.64 3	67.5	0.94	9 20
16.73 8	67.5	0.94	6 05
17.82 3	67.7	0.96	7 59
17.63 4	67.7	0.96	0 11
13.09 18	68.5	1.06	8 26
17.79 2	68.9	1.11	55 39
13.30 17	69.2	1.15	9 27
17.72 3	69.3	1.16	8 37

241—300			
Mag.	α 23^{m}	x	y+60′ / y
	s	′	′ ″
15.24 11	9.4	1.17	3 38
17.69 3	11.1	1.39	8 32
12.97 18	11.5	1.44	2 22
15.78 8	11.6	1.45	2 42
14.34 14	12.3	1.54	2 41
13.05 16	12.5	1.56	1 12
17.50 4	13.0	1.62	59 30
17.96 3	13.5	1.68	9 30
17.50 5	13.5	1.69	56 58
18.74 1	14.0	1.74	5 47
18.54 2	14.0	1.74	6 43
18.26 2	14.0	1.75	56 09
13.41 15	14.2	1.76	9 34
16.03 8	14.2	1.76	6 05
18.41 3	14.1	1.76	4 53
18.79 2	14.7	1.84	2 25
15.19 11	15.3	1.90	8 07
17.05 5	15.8	1.96	5 35
17.48 4	16.2	2.02	59 14
16.23 9	17.1	2.12	5 36
16.73 8	17.2	2.15	57 02
18.21 3	17.4	2.17	56 10
18.09 3	17.4	2.17	57 32
17.38 5	17.5	2.19	3 09
18.20 3	17.8	2.21	7 33
16.77* 1	17.9	2.23	9 00
17.10 1	17.9	2.23	8 59
12.17 18	17.9	2.23	7 58
16.58 9	17.9	2.24	58 32
16.31 8	18.5	2.31	55 11
16.78 7	18.7	2.32	9 34
18.47 2	18.6	2.32	58 31
17.54 4	18.7	2.34	58 51
15.52 10	18.8	2.34	9 43
16.31 8	18.8	2.34	5 27
17.23 5	19.0	2.36	9 21
18.47 3	19.0	2.37	1 54
16.75 8	19.4	2.43	4 27
17.95 3	19.6	2.44	6 22
18.43 3	19.7	2.46	0 57
15.32 12	19.8	2.47	4 34
18.01 3	19.8	2.47	4 18
17.26 5	19.8	2.47	58 18
18.11 3	20.1	2.50	9 00
18.33 3	20.3	2.53	8 20
18.74 1	20.4	2.54	6 43
14.94 10	20.6	2.57	59 50
18.51 3	20.6	2.58	1 54
16.84 8	21.4	2.67	55 43
16.82 8	21.8	2.73	55 21
18.43 3	21.9	2.74	4 18
17.13 4	22.3	2.77	8 12
14.71 14	22.6	2.83	58 19
14.79 10	22.6	2.83	59 22
17.97 3	22.7	2.84	56 25
16.71 8	23.1	2.89	56 05
16.83 7	23.2	2.89	9 48
16.94* 1	23.3	2.90	8 06
17.38 1	23.5	2.93	8 07
17.99 3	24.2	3.01	8 00

25 prec. + $67^{s}.4$, + 8′ 15″

301—335

Mag.		α 23^{m}	x	$y+60'$ y
		s	′	′ ″
13.04	16	24.2	3.01	6 18
17.92	2	24.6	3.06	8 15
16.85	8	24.7	3.09	4 04
15.76	9	25.0	3.12	3 53
18.03	2	25.3	3.15	8 35
17.22	5	25.3	3.16	3 47
17.10d	1	25.7	3.21	0 43
18.50	2	26.1	3.25	5 39
15.12	12	26.2	3.27	55 39
16.77	8	27.2	3.39	8 12
15.31	9	27.6	3.45	0 41
16.99	8	27.7	3.46	3 55
17.18	5	27.9	3.47	8 18
17.94w	2	28	3.5	1 36
17.28	5	28.0	3.50	4 46
17.96	3	28.4	3.54	9 41
17.56	1	28.4	3.55	56 05
11.20w	14	28.7	3.59	59 51
17.97	3	28.9	3.61	57 16
14.93	12	29.3	3.65	8 02
18.34	3	29.8	3.72	1 47
17.00	8	29.8	3.73	59 23
18.51	2	29.9	3.74	0 05
18.74	1	30.2	3.76	6 45
17.80	3	30.5	3.80	7 40
18.74	1	30.5	3.80	6 35
16.76	8	30.7	3.84	57 06
18.29	2	30.8	3.85	58 21
17.31	5	30.8	3.85	56 02
16.82	8	31.3	3.90	5 30
13.60	15	31.6	3.95	56 06
17.13	5	31.6	3.95	4 40
18.58	2	31.8	3.98	3 54
17.07	5	31.9	3.99	57 24
16.84	8	32.2	4.01	6 52

336—370

Mag.		α 23^{m}	x	$y+60'$ y
		s	′	′ ″
18.33	2	32.3	4.04	56 33
18.23	3	32.4	4.05	57 55
18.27	2	32.5	4.05	9 29
17.69	3	32.6	4.08	57 21
17.33	5	33.1	4.13	8 41
18.37	2	33.2	4.15	55 40
18.31	3	33.3	4.16	59 39
16.82	7	33.4	4.16	8 59
15.98	9	33.6	4.19	5 12
18.41	3	33.7	4.21	0 08
18.13	3	33.9	4.23	8 04
15.69	8	34.2	4.27	58 22
17.92	3	34.4	4.29	8 01
13.90	14	34.5	4.30	5 51
17.73	3	34.6	4.31	9 33
14.42	14	34.6	4.32	58 04
17.88	3	34.9	4.35	6 13
17.17	5	34.9	4.36	55 30
15.13	11	35.1	4.37	8 27
17.49	5	36.5	4.56	0 41
18.19	3	36.7	4.57	7 43
18.64	1	37.3	4.66	58 48
15.31	10	37.7	4.70	8 48
16.40	9	37.6	4.70	3 40
15.79	8	37.8	4.73	1 04
17.12	5	38.3	4.77	6 13
17.64	3	38.3	4.77	8 30
16.02	9	38.2	4.78	4 01
15.76	9	38.6	4.83	56 46
13.84	16	38.9	4.85	8 52
18.74	1	39.0	4.87	2 38
17.89	3	39.7	4.94	5 57
13.63	16	39.9	4.97	7 32
13.40	16	39.8	4.98	55 52
16.07	8	40.3	5.02	0 50

371—405

Mag.		α 23^{m}	x	$y+60'$ y
		s	′	′ ″
16.85	8	40.3	5.03	2 47
12.70	18	40.6	5.05	6 22
16.32	8	40.8	5.08	8 31
16.67	8	40.8	5.09	2 37
15.06	12	41.5	5.20	59 17
16.77	8	42.2	5.25	7 10
13.25	17	42.6	5.34	55 55
17.96	3	43.0	5.35	6 05
14.33	14	43.1	5.36	6 43
17.38	5	42.9	5.37	59 28
18.06	3	43.2	5.38	9 37
18.00	3	44.2	5.51	1 24
17.12	5	44.5	5.57	55 00
17.42	5	44.8	5.58	7 10
13.57	16	45.3	5.65	4 45
17.32	5	45.5	5.67	3 02
17.86w	2	46	5.7	9 48
14.35	9	46.0	5.73	5 42
17.69	3	46.0	5.73	9 15
15.66	9	46.1	5.77	57 32
15.97	9	46.3	5.78	4 54
17.91	3	46.6	5.81	2 18
17.90	2	46.8	5.82	6 41
18.35	3	48.7	6.07	2 29
15.49	11	48.7	6.10	55 40
18.19	3	49.2	6.13	7 07
16.65	8	49.2	6.14	3 14
17.05	7	49.3	6.15	4 19
13.66	16	49.4	6.15	5 50
18.09	3	49.6	6.17	8 26
17.64	3	49.8	6.24	56 57
17.96	3	49.8	6.24	58 35
18.55	1	50.1	6.25	4 11
18.20	3	50.3	6.28	4 18
17.18	5	50.3	6.28	3 42

406—440

Mag.		α 23^{m}	x	$y+60'$ y
		s	′	′ ″
16.73	8	50.1	6.28	58 45
17.17	5	50.5	6.29	7 52
16.98	5	50.8	6.36	58 45
18.19	3	51.2	6.37	7 20
13.76	13	51.9	6.46	6 31
18.09	3	52.1	6.49	9 24
18.02w	2	52	6.5	56 24
16.83	5	52.3	6.51	8 48
16.36	8	53.2	6.62	8 14
17.11	5	53.1	6.65	55 11
18.16	3	53.1	6.65	57 51
16.80	8	53.2	6.66	57 29
18.37	2	53.5	6.67	0 31
18.19	3	53.6	6.68	6 24
17.23	5	53.3	6.68	57 39
17.31	3	53.8	6.70	6 33
15.44	7	53.8	6.70	6 42
15.06	12	53.7	6.72	56 45
17.59	3	54.2	6.75	5 14
18.09	3	54.3	6.77	1 53
17.37	3	54.4	6.79	2 06
15.48	10	54.7	6.83	0 00
18.02	3	54.6	6.84	56 57
17.52	3	55.5	6.92	3 44
16.53	8	55.3	6.92	58 59
15.18	11	55.5	6.95	55 57
11.77	15	56.1	7.00	0 54
17.84	3	56.4	7.02	8 05
18.07	3	56.1	7.03	57 04
17.60	3	56.8	7.07	5 02
16.76	8	57.1	7.12	2 50
17.13	4	57.5	7.16	8 07
16.83	7	57.6	7.18	5 39
13.93	15	58.3	7.27	0 51
18.01	3	58.5	7.33	56 16

441—452

Mag.		α 23^{m}	x	$y+60'$ y
		s	′	′ ″
17.09	3	58.6	7.34	56 24
18.32	3	58.8	7.34	1 58
16.49	8	58.8	7.36	56 38
17.92	3	59.1	7.40	57 51
15.30	11	59.7	7.44	6 24
17.92	3	59.9	7.46	7 52
17.26	5	59.9	7.47	1 48
17.23	3	60.1	7.50	4 31
16.45	8	60.4	7.53	9 30
16.98	5	61.1	7.62	3 09
16.89	5	61.4	7.65	6 40
15.72	8	61.6	7.68	7 29

25 prec. + $67^{\mathrm{s}}.6$, + 8′ 15″

23^{h} Area 19. Supplementary Stars + 59°, + 60°

1s—15s

Mag.		α 21^{m}	x	$y+60'$ y
		s	′	′
16.50	7	31	88.9	0.3
17.76	2	33	89.1	0.2
18.00	2	34	89.3	1.5
17.96	2	34	89.3	1.8
17.38	2	34	89.3	3.0
18.03	2	36	89.4	2.4
14.76	10	36	89.5	58.7
16.53	7	37	89.6	0.9
16.39	7	37	89.6	3.0
17.02	4	38	89.7	58.3
16.66	6	39	89.8	57.4
17.94	2	39	89.9	2.6
15.17	9	39	89.9	2.9
17.22	2	39	89.9	3.4
16.67	6	40	90.0	57.3

16s—30s

Mag.		α 21^{m}	x	$y+60'$ y
		s	′	′
17.83	2	40	90.0	0.1
16.48	3	41	90.1	57.8
18.06	2	41	90.1	1.7
16.52	7	42	90.2	59.7
16.57	7	42	90.2	5.2
18.06	2	42	90.3	0.0
14.08	12	42	90.3	1.0
17.94	2	42	90.3	3.4
17.02	4	42	90.3	5.7
17.72	2	42	90.3	6.8
18.06	2	44	90.5	56.8
18.08	2	44	90.5	4.4
17.80	2	44	90.5	5.3
15.87	7	45	90.6	57.7
18.08	2	45	90.6	58.8

31s—45s

Mag.		α 21^{m}	x	$y+60'$ y
		s	′	′
18.00	2	46	90.7	56.2
17.07	3	46	90.7	59.5
18.00	2	46	90.7	5.1
16.39	7	46	90.8	58.5
16.20	7	46	90.8	59.8
13.73	12	46	90.8	6.4
18.06	2	46	90.8	7.0
18.03	2	47	90.9	55.6
17.64	2	47	90.9	0.3
18.08	2	47	90.9	1.5
16.18	7	47	90.9	3.9
18.14	2	48	91.0	58.1
14.71	11	48	91.0	4.8
17.64	2	49	91.1	59.9
14.89	11	49	91.1	0.7

46s—60s

Mag.		α 21^{m}	x	$y+60'$ y
		s	′	′
12.50	14	49	91.1	4.9
16.97	3	49	91.1	7.0
17.86	2	50	91.2	55.3
16.71	7	49	91.2	56.4
17.98	2	50	91.2	57.7
15.08	2	49	91.2	6.4
18.00	2	49	91.2	8.0
18.00	2	50	91.3	3.4
17.68	2	50	91.3	5.1
16.55	7	53	91.6	54.4
18.30	2	53	91.6	1.0
17.94	2	53	91.6	1.4
17.80	2	53	91.7	5.3
14.21	13	53	91.7	8.7
12.44	14	54	91.8	54.4

61s—75s

Mag.		α 21^{m}	x	$y+60'$ y
		s	′	′
13.67	13	55	91.8	56.2
17.74	2	55	91.8	8.6
14.34	10	55	91.9	53.5
12.62	15	55	91.9	56.5
16.71	7	55	91.9	6.5
17.64	2	55	91.9	8.0
18.29	2	56	92.0	59.9
16.84	7	56	92.0	1.2
18.06	2	56	92.0	2.6
16.45	5	56	92.0	4.6
16.29	7	57	92.1	2.4
10.58	10	57	92.1	4.7
17.43	2	57	92.1	7.7
17.60	2	58	92.2	57.3
15.72	8	58	92.2	58.2

25 prec. + $67^{\mathrm{s}}.4$, + 8′ 15″

76s—135s				
Mag.		α 21m	x	y+60′ / y
		s	′	′
16.81	7	58	92.2	3.2
16.53	7	57	92.2	8.7
17.76	2	59	92.4	9.8
16.37	7	60	92.5	54.9
15.02	10	60	92.5	58.0
15.89	7	60	92.5	1.2
16.64	7	60	92.5	2.5
17.96	2	60	92.5	4.0
17.89	2	60	92.5	9.6
16.91	7	61	92.6	4.3
15.96	7	62	92.7	54.8
16.68	7	63	92.8	52.8
16.74	6	63	92.9	54.5
17.93	2	65	93.2	10.2
14.97	10	67	93.3	54.4
17.63	2	67	93.4	52.2
16.08	7	67	93.4	52.4
15.01	10	67	93.4	52.8
16.06	7	68	93.5	52.4
17.98	2	68	93.6	52.9
16.11	7	71	93.9	53.6
16.37	7	72	94.0	10.8
18.03	2	77	94.6	52.2
18.03	2	79	94.8	52.4
17.42	2	78	94.8	10.4
15.55	7	79	94.8	10.6
18.03	2	78	94.8	10.7
18.02	2	80	95.0	51.9
17.92	2	80	95.0	10.4
17.44	2	80	95.0	10.8
17.28	2	80	95.0	11.5
16.40	7	81	95.1	52.0
17.86	2	81	95.1	10.3
17.86	2	81	95.1	10.9
17.96	2	81	95.1	11.3
16.70	7	82	95.2	53.4
18.06	2	84	95.5	10.7
18.02	2	85	95.6	10.9
17.70	2	86	95.7	51.3
15.23	9	86	95.7	51.6
17.58	2	86	95.7	53.4
17.93	2	87	95.8	52.0
15.70	7	88	96.0	50.8
17.46	2	88	96.0	52.3
17.65	2	90	96.2	51.4
14.44	12	90	96.2	51.6
18.02	2	90	96.2	53.5
14.31	12	89	96.2	12.1
17.26	4	91	96.3	52.8
17.56	2	90	96.3	10.7
17.42	2	91	96.4	11.3
18.14	2	92	96.5	11.0
16.08	7	94	96.8	51.1
16.76	7	95	96.8	55.0
16.18	7	95	96.8	10.4
17.72	2	95	96.8	11.2
17.30	2	95	96.9	11.0
17.86	2	98	97.2	52.1
18.14	2	98	97.2	52.3
17.01	4	98	97.2	54.6

136s—195s				
Mag.		α 22m	x	y+60′ / y
		s	′	′
16.81	7	38	97.3	52.9
16.76	7	40	97.4	51.2
18.02	2	40	97.5	11.7
18.03	2	41	97.6	50.7
18.12	2	41	97.6	51.7
14.01	13	41	97.6	52.9
18.00	2	42	97.7	53.5
18.02	2	42	97.7	11.4
18.08	2	42	97.8	52.2
18.02	2	43	97.8	11.4
17.00	4	42	97.8	12.0
18.08	2	43	97.9	51.7
18.14	2	44	98.0	10.1
18.06	2	44	98.0	10.4
17.14	4	46	98.2	54.4
17.70	2	46	98.2	54.7
17.07	4	48	98.5	50.2
17.64	2	48	98.5	10.9
14.66	11	49	98.6	53.9
13.30	14	50	98.7	10.7
18.06	2	50	98.8	50.7
16.40	7	50	98.8	51.6
18.05	2	50	98.8	10.9
18.08	2	51	98.9	11.1
18.00	2	52	99.0	51.2
17.60	2	52	99.0	52.0
18.12	2	52	99.0	54.2
17.80	2	52	99.0	10.7
17.86	2	52	99.0	10.8
16.78	7	53	99.1	52.0
17.64	2	53	99.1	54.4
16.78	7	53	99.1	54.5
17.84	2	54	99.2	51.3
13.65	12	54	99.2	10.1
18.00	2	54	99.3	51.6
17.80	2	54	99.3	53.0
16.67	7	56	99.4	50.4
17.61	2	55	99.4	52.2
10.09	8	55	99.4	52.4
16.16	7	55	99.4	54.0
18.14	2	56	99.4	11.3
16.47	7	55	99.4	12.0
17.88	2	56	99.5	52.9
17.86	2	56	99.5	11.6
14.56	11	56	99.6	52.4
17.94	2	57	99.6	10.1
18.00	2	57	99.6	11.3
17.70	2	58	99.7	50.6
16.20	7	58	99.8	50.5
14.56	11	59	99.8	51.2
16.74	7	58	99.8	52.0
17.76	2	59	99.8	53.2
18.06	2	58	99.8	53.6
18.02	2	60	0.0	53.0
16.51	7	60	0.0	53.7
13.52	15	61	0.1	53.8
14.62	12	61	0.1	54.0
16.51	7	61	0.1	54.1
15.46	8	61	0.1	54.9
17.63	2	61	0.1	11.0

196s—255s				
Mag.		α 23m	x	y+60′ / y
		s	′	′
17.44	2	2	0.2	52.7
17.82	2	2	0.3	12.1
16.51	7	3	0.4	50.0
13.80	10	3	0.4	12.5
17.78	2	4	0.5	10.2
17.06	4	4	0.5	10.8
18.17	2	5	0.6	53.0
17.64	2	6	0.7	11.2
17.56	2	6	0.7	12.6
17.82	2	6	0.8	10.3
16.54	7	8	1.0	49.9
17.72	2	8	1.0	50.0
16.73	7	8	1.0	52.2
17.76	2	8	1.0	11.2
15.98	7	9	1.1	52.0
18.24	2	9	1.1	54.6
17.89	2	9	1.1	11.6
17.03	4	10	1.2	51.1
16.74	7	10	1.2	51.3
15.51	7	10	1.2	53.3
18.17	2	11	1.4	52.9
16.06	7	13	1.6	50.9
15.23	9	12	1.6	10.3
18.21	2	14	1.7	52.4
16.56	7	14	1.8	54.1
17.92	2	15	1.9	10.9
17.50	2	16	2.0	53.2
14.97	10	18	2.2	54.9
16.46	7	17	2.2	11.6
16.48	7	18	2.3	54.3
15.79	7	18	2.3	54.9
16.74	7	20	2.4	51.2
17.09	4	20	2.4	51.8
15.81	7	19	2.4	53.0
18.00	2	20	2.5	11.7
14.64	11	21	2.6	50.5
17.97	2	21	2.6	52.9
17.08	4	21	2.6	53.1
16.80	7	21	2.6	54.8
17.49	2	21	2.6	11.3
17.70	2	21	2.6	11.5
16.87	7	22	2.8	54.9
16.46	7	23	2.9	50.9
15.01	9	24	3.0	50.2
15.35	6	24	3.0	51.6
18.24	2	24	3.0	54.0
16.75	4	26	3.2	11.1
17.28	4	26	3.3	53.4
17.96	2	28	3.4	53.2
15.77	7	29	3.6	52.4
18.03	2	29	3.7	52.2
18.02	2	30	3.7	10.4
16.93	4	30	3.7	11.3
16.66	7	31	3.9	51.0
17.86	2	32	4.0	50.8
13.81	14	31	4.0	51.0
18.08	2	32	4.0	52.9
17.62	2	32	4.0	11.2
15.37	8	33	4.1	52.7
13.16	12	34	4.2	52.4

256s—315s				
Mag.		α 23m	x	y+60′ / y
		s	′	′
17.66	2	33	4.2	52.7
15.10	2	37	4.7	52.5
17.54	2	38	4.7	10.4
17.96	2	38	4.7	10.7
17.78	2	38	4.8	52.9
16.77	7	39	4.8	53.7
17.66	2	38	4.8	10.0
17.09	4	42	5.2	51.7
16.68	7	42	5.2	52.1
18.24	2	42	5.4	54.2
17.05	4	45	5.7	51.7
17.66	2	47	5.8	54.4
17.92	2	46	5.8	54.8
16.37	7	46	5.8	10.8
17.76	2	48	6.0	52.7
18.02	2	48	6.0	53.6
17.64	2	48	6.0	54.8
17.24	4	48	6.0	10.6
17.83	2	51	6.4	54.0
15.30	9	51	6.4	54.4
15.46	7	53	6.6	53.4
17.23	4	53	6.6	53.8
17.88	2	54	6.7	10.8
16.61	7	54	6.8	52.9
15.39	6	57	7.1	54.8
12.23	14	58	7.2	10.3
17.97	2	60	7.5	54.4
13.75	12	62	7.7	58.9
17.32	2	62	7.7	2.9
18.17	2	62	7.7	5.3
18.14	2	62	7.7	5.5
18.26	2	63	7.8	57.7
17.56	2	62	7.8	59.0
17.92	2	63	7.9	57.1
17.19	4	63	7.9	0.6
16.60	7	63	7.9	1.0
13.44	14	63	7.9	4.7
17.38	2	63	7.9	5.4
16.44	7	64	8.0	54.4
18.21	2	64	8.0	57.8
18.05	2	64	8.0	58.2
16.74	7	64	8.0	0.2
14.99	11	64	8.0	3.9
16.89	5	65	8.1	2.0
18.04	2	65	8.1	2.2
17.91	2	65	8.1	2.5
18.24	2	66	8.2	58.4
17.14	4	66	8.3	1.2
16.18	7	66	8.3	3.1
16.79	7	68	8.4	0.6
18.10	2	67	8.4	3.7
18.08	2	67	8.4	6.2
18.14	2	68	8.5	56.2
18.32	2	68	8.5	1.8
17.48	2	68	8.5	3.2
16.37	7	69	8.6	55.3
17.14	4	69	8.6	0.2
17.76	2	69	8.7	55.6
16.98	4	69	8.7	56.0
17.26	2	70	8.7	7.8

316s—357s				
Mag.		α 24m	x	y+60′ / y
		s	′	′
16.46	7	10	8.8	59.9
18.24	2	11	8.8	1.3
18.08	2	11	8.8	6.8
18.12	2	11	8.9	56.6
18.06	2	11	8.9	3.6
15.50	8	11	8.9	6.1
14.03	12	12	9.0	6.0
18.05	2	13	9.1	4.6
17.64	2	13	9.1	6.6
17.50	2	14	9.2	57.0
18.12	2	14	9.2	59.8
16.05	7	14	9.2	0.5
14.80	10	14	9.2	6.6
18.12	2	14	9.3	57.3
11.99	14	15	9.3	8.2
17.60	2	15	9.4	3.1
15.32	10	15	9.4	6.6
17.92	2	16	9.5	57.2
16.77	7	16	9.5	1.4
16.72	7	17	9.6	59.6
17.96	2	17	9.6	0.0
18.02	2	17	9.6	6.9
16.36	6	17	9.6	7.8
17.93	2	17	9.7	55.9
18.00	2	18	9.7	0.9
17.98	2	19	9.8	57.6
16.59	7	20	10.0	59.9
17.35	2	20	10.0	1.9
18.08	2	20	10.0	3.4
17.64	2	20	10.0	6.3
15.95	7	21	10.1	59.1
12.96	16	22	10.3	57.4
14.87	10	22	10.3	58.0
16.73	7	22	10.3	1.2
15.95	7	24	10.4	57.8
17.03	3	24	10.4	59.2
16.59	7	24	10.5	4.1
10.83	10	27	10.8	58.4
17.06	4	26	10.8	5.1
17.80	2	28	11.0	57.2
17.34	2	29	11.1	2.0
16.19	7	30	11.2	59.0

25 prec. + 67.ˢ6, + 8′ 15″

Area 20. Center for 1900: 0h 40m + 45° 20′ (15′ × 15′)

1—60

Mag.		α 39^{m}	x	$y+20'$
		s	′	′ ″
13.19	18	38.6	96.25	23 41
16.31	8	38.8	96.28	23 53
16.91	8	38.8	96.29	16 12
17.28	4	39.1	96.34	25 42
16.70	8	39.6	96.43	25 59
16.90	8	40.1	96.50	20 44
15.08	12	40.5	96.57	16 46
16.56	8	41.1	96.68	16 49
16.52	8	41.1	96.68	16 24
18.36	3	41.3	96.72	23 14
18.73	3	41.6	96.77	21 47
18.30	3	41.7	96.79	23 01
13.16	17	42.1	96.86	27 17
16.47	8	42.4	96.92	25 37
17.55	3	42.5	96.92	20 25
18.75	3	42.8	96.99	15 37
17.70	3	43.5	97.10	18 25
18.70	3	44.1	97.22	15 12
16.90	8	44.5	97.28	28 58
15.73	10	45.1	97.38	26 29
15.85	9	45.4	97.44	18 02
16.51	8	45.5	97.46	27 34
16.39	9	45.6	97.49	27 25
18.04	3	45.7	97.49	18 41
15.53	9	45.9	97.53	22 35
17.93	3	46.9	97.70	18 34
17.75	3	47.4	97.78	20 50
16.79	8	47.9	97.87	24 06
15.76	10	48.4	97.96	25 42
15.38	12	48.8	98.03	21 27
15.56	9	48.8	98.03	18 15
15.23	12	48.8	98.04	18 43
17.59	4	49.0	98.07	22 57
18.72	2	50.0	98.24	21 01
18.74	3	50.0	98.25	19 45
16.36	9	50.3	98.30	24 00
18.59	3	50.5	98.34	22 05
18.52	3	50.7	98.36	19 05
18.34	3	50.7	98.36	28 53
15.84	9	50.7	98.37	20 24
15.26	12	50.8	98.38	15 56
18.35	3	51.0	98.42	29 28
18.80	2	51.6	98.52	24 43
16.47	9	51.7	98.55	16 50
14.87	12	51.9	98.58	25 56
17.38	4	52.7	98.71	17 35
17.71	3	52.9	98.75	23 17
18.40	3	53.1	98.78	26 54
18.54	3	53.4	98.84	17 11
18.80	3	53.6	98.89	26 09
15.85	8	53.8	98.92	20 47
18.66	2	54.1	98.96	23 22
15.45	10	54.4	99.01	18 13
18.67	3	54.5	99.04	19 45
17.43	3	54.7	99.07	15 01
17.37	3	54.8	99.08	21 27
18.72	3	55.4	99.20	19 44
15.24	12	55.4	99.20	28 33
18.92	2	55.9	99.28	23 42
14.88	12	55.9	99.28	24 57

61—120

Mag.		α 39^{m}	x	$y+20'$
		s	′	′ ″
17.75	3	56.2	99.34	22 55
16.07	9	56.3	99.35	16 32
17.34	3	56.4	99.36	22 46
18.48	3	57.0	99.47	22 43
13.32	17	57.0	99.47	19 39
18.50	2	57.1	99.49	18 19
18.48	3	57.3	99.51	19 11
18.38	3	57.6	99.58	16 57
16.54	9	57.6	99.59	21 58
18.95	2	58.1	99.66	22 57
18.20	3	59.0	99.82	27 09
17.78	3	59.0	99.83	15 38
15.66	10	59.1	99.84	19 38
16.76	8	59.3	99.88	15 12
18.68	2	59.3	99.88	27 46
19.11	2	59.5	99.91	22 06
16.25	9	59.6	99.94	26 01
18.33	2	60.7	0.13	25 13
17.07	8	61.2	0.21	15 14
16.06	9	61.3	0.22	22 18
18.27	3	61.4	0.25	29 19
19.08	1	61.5	0.27	23 29
19.15	2	62.2	0.38	22 21
18.72	3	62.2	0.38	15 25
17.70	3	63.0	0.53	24 16
15.61	10	63.2	0.56	28 18
16.51	8	63.8	0.67	17 15
18.86	2	64.1	0.71	25 54
17.29	4	64.1	0.71	22 02
17.80	3	64.2	0.73	21 48
15.12	12	64.4	0.76	19 10
13.01	17	64.4	0.77	29 25
18.70	2	64.5	0.79	26 19
18.24	3	64.8	0.85	21 04
11.10w	10	64.8	0.85	24 04
18.35	3	64.8	0.85	23 34
18.82	2	64.9	0.86	26 34
16.15	9	64.9	0.87	17 58
15.78	9	65.0	0.88	22 55
15.05	12	65.0	0.88	17 17
18.99	2	65.3	0.93	21 43
17.53	4	65.5	0.97	27 58
17.76	3	66.2	1.09	21 24
18.92	2	66.8	1.20	23 14
16.42	9	67.5	1.32	17 40
13.25	17	68.2	1.44	27 08
15.95	9	68.4	1.47	27 36
18.48	3	68.4	1.47	29 48
18.59	3	68.5	1.48	28 07
15.19	11	68.7	1.53	19 37
16.14	10	69.6	1.69	27 51
17.66	3	70.0	1.76	18 03
18.18	3	70.3	1.82	19 26
18.92	2	70.7	1.88	23 52
17.71	3	70.7	1.89	22 00
15.60	11	71.2	1.97	15 04
17.64	3	71.8	2.06	26 27
18.83	2	72.1	2.13	17 37
18.95	2	72.1	2.14	23 58
17.63	3	72.7	2.24	27 04

121—180

Mag.		α 40^{m}	x	$y+20'$
		s	′	′ ″
17.02	8	13.0	2.28	26 48
18.23	3	13.6	2.39	29 35
18.86	2	14.1	2.46	26 30
16.93	8	14.4	2.52	29 11
17.83	3	14.5	2.54	26 38
19.05	2	14.6	2.57	19 15
16.91	8	14.7	2.59	29 19
19.31	2	14.9	2.62	20 08
17.56	3	15.1	2.65	22 29
16.01	10	15.2	2.67	27 57
16.12	9	15.3	2.69	16 53
16.12	9	15.5	2.71	17 41
15.41	10	15.6	2.74	19 09
17.75	3	15.9	2.79	26 58
15.78	10	16.4	2.88	21 19
17.91	3	16.5	2.90	28 15
17.25	7	17.2	3.01	22 09
16.88	7	17.2	3.02	29 59
16.92	7	17.4	3.05	27 58
12.74	17	17.3	3.05	20 26
16.16	9	17.5	3.08	19 39
17.72	3	18.3	3.21	16 45
14.77	13	18.3	3.22	22 43
8.97w	5	19.2	3.39	20 55
17.04	8	19.6	3.45	24 46
17.40	5	19.7	3.47	22 33
17.09	8	19.9	3.48	25 11
17.02	8	20.1	3.52	27 15
16.40	9	20.7	3.64	27 50
16.31	9	21.0	3.68	15 17
16.69	8	21.2	3.71	20 30
16.28	9	21.3	3.73	28 31
16.99	8	22.2	3.90	27 31
16.27	8	22.3	3.91	27 51
19.15	2	22.7	3.99	19 26
16.82	8	23.5	4.12	29 34
17.32	5	23.7	4.16	19 38
17.85	3	23.7	4.16	23 22
16.07	9	23.7	4.17	21 19
15.83	9	23.8	4.19	21 16
16.97	7	24.1	4.23	16 45
17.97	2	24.3	4.26	16 47
13.52	16	25.1	4.41	27 26
16.69	9	25.3	4.45	16 38
18.16	3	25.5	4.49	23 29
16.68	8	25.7	4.50	27 51
18.56	2	25.9	4.55	18 05
13.86	15	26.0	4.57	24 37
16.17	9	26.5	4.66	17 20
11.40w	14	26.5	4.66	15 22
18.82	2	26.6	4.66	26 29
16.78	7	26.6	4.67	29 34
18.77	2	26.9	4.73	22 08
17.51	3	27.2	4.79	22 41
15.61	10	27.4	4.80	29 42
15.86	9	28.2	4.95	25 18
15.45	12	28.5	5.00	26 22
17.71	3	28.5	5.00	19 03
17.64	3	30.0	5.26	15 52
18.10	3	30.1	5.28	25 12

181—240

Mag.		α 40^{m}	x	$y+20'$
		s	′	′ ″
18.69	3	30.3	5.32	20 52
18.90	2	30.4	5.34	20 37
17.98	3	30.4	5.34	19 46
17.05	7	30.4	5.35	21 19
17.19	6	30.8	5.41	19 38
18.34	2	31.0	5.45	19 36
15.10	12	31.1	5.46	15 59
17.19	8	31.5	5.53	21 42
17.18	8	31.7	5.57	19 08
14.08	13	32.0	5.62	15 34
18.14	3	32.1	5.65	23 40
13.12	17	32.3	5.69	24 36
17.64	3	32.3	5.69	16 31
15.00	12	32.6	5.73	19 38
18.51	3	32.8	5.77	23 46
17.93	3	32.8	5.77	21 35
17.05	8	33.0	5.80	21 27
15.79	9	33.2	5.83	15 30
15.77	10	33.3	5.85	25 42
12.79	18	33.4	5.87	16 49
15.96	9	33.7	5.91	22 46
18.20	3	33.8	5.93	28 38
18.24	3	33.8	5.94	28 40
16.40	9	33.9	5.96	23 56
17.45	3	33.9	5.96	16 13
18.77	2	33.9	5.96	15 56
16.00	9	34.6	6.09	23 52
16.25	9	35.1	6.16	20 01
18.81	2	36.2	6.36	19 02
17.89	3	36.4	6.40	21 58
18.56	2	36.6	6.43	21 10
18.65	3	37.1	6.51	21 12
16.81	8	37.3	6.54	28 21
16.02	9	37.5	6.58	19 31
17.23	5	37.6	6.60	20 19
18.43	3	37.9	6.66	23 43
17.85	3	37.9	6.67	21 29
17.24	5	38.3	6.74	21 08
16.50	9	38.5	6.76	15 17
16.28	9	38.8	6.81	15 33
15.28	12	38.9	6.83	29 58
17.85	3	39.1	6.86	25 41
16.95	6	39.2	6.89	27 08
12.73	18	39.4	6.93	20 40
16.82	8	40.1	7.03	26 25
18.73	2	40.3	7.07	27 58
17.21	4	40.5	7.11	23 46
17.01	8	40.6	7.12	27 51
16.86	8	40.6	7.13	21 39
17.93	3	40.8	7.17	25 15
17.03	8	41.3	7.27	21 32
16.29	9	41.4	7.29	17 40
15.61	9	42.0	7.38	19 16
16.98	4	42.1	7.39	28 15
17.47	4	42.2	7.42	18 14
17.12	8	42.5	7.46	19 39
17.82	3	43.0	7.55	25 00
18.83	2	43.1	7.59	22 29
16.85	8	43.2	7.60	15 20
14.81	13	43.7	7.66	25 46

241—300

Mag.		α 40^{m}	x	$y+20'$
		s	′	′ ″
18.88	2	45.1	7.93	20 50
15.76	9	45.2	7.94	16 08
18.05	3	45.2	7.95	22 35
17.99	3	45.2	7.95	19 23
17.55	3	45.6	8.00	26 58
17.60	3	45.7	8.03	23 10
16.31	9	45.9	8.06	19 14
16.36	9	45.9	8.06	16 24
18.37	3	46.0	8.06	28 08
16.24	9	46.0	8.06	28 16
13.94	15	46.4	8.15	19 22
15.25	12	46.9	8.24	26 04
17.97	3	46.9	8.25	21 01
18.86	2	47.1	8.29	20 17
17.12	4	47.6	8.37	21 06
17.98x	1	47.6	8.37	21 47
15.59	10	47.7	8.39	15 18
17.32	4	48.0	8.44	18 08
18.48	3	48.4	8.50	16 49
17.80	3	48.7	8.57	17 18
18.58	2	49.2	8.63	28 09
18.15	3	49.1	8.64	19 14
16.38	9	49.4	8.66	25 38
17.78	3	49.4	8.69	21 45
13.27	17	49.7	8.71	26 41
15.48	11	49.9	8.75	28 58
17.77	3	50.0	8.76	28 11
17.21	3	50.0	8.78	15 19
17.72	3	50.2	8.80	29 43
18.79	2	50.2	8.83	16 47
18.77	3	50.4	8.84	25 44
16.00	9	50.4	8.87	24 50
18.62	3	51.1	8.96	28 02
16.96	8	51.2	8.98	25 24
17.04	6	51.1	8.99	24 40
14.65	11	52.0	9.15	16 37
17.97	3	52.1	9.15	28 28
16.27	9	53.1	9.34	24 59
18.02	3	53.1	9.34	24 30
15.86	10	53.5	9.39	26 35
14.82	13	53.8	9.44	28 33
13.14	18	53.9	9.46	21 55
15.06	12	54.5	9.57	25 30
18.56	3	54.7	9.62	16 53
18.15	3	55.2	9.68	28 37
17.23	4	55.9	9.83	16 34
17.70	3	56.2	9.87	29 59
18.68	2	56.7	9.96	20 45
16.86	7	57.0	10.00	28 21
17.00	8	57.3	10.06	20 04
18.43	3	57.3	10.07	23 47
15.96	9	57.6	10.11	29 09
17.31w	2	58	10.2	22 30
17.81	3	58.2	10.21	26 00
17.40	3	58.1	10.22	19 32
12.46	17	58.3	10.23	25 41
13.71	16	58.4	10.26	17 37
15.21	12	58.4	10.27	19 48
16.12	10	58.9	10.35	16 17
17.78	3	59.2	10.40	20 07

25 prec. + 82ˢ.6, + 8′ 14″

301—310				311—313			
Mag.	α 40^{m}	x	$y+20'$	Mag.	α 41^{m}	x	$y+20'$
	s	′	′ ″		s	′	′ ″
14.60 13	59.5	10.46	20 12	11.28w14	1.5	10.80	18 02
18.72 3	59.6	10.48	24 26	15.60 10	1.6	10.83	24 53
17.41 3	59.8	10.49	26 48	18.42 1	2.2	10.94	18 03
15.28 12	60.0	10.55	19 09				
17.55 1	60.5	10.63	17 43				
17.17 5	60.8	10.69	23 10				
16.11 9	61.1	10.72	29 18				
18.75 3	61.0	10.72	20 40				
17.62 3	61.1	10.74	22 54				
16.89 8	61.2	10.75	22 37				

25 prec. + $82^{\mathrm{s}}.7$, + 8′ 13″

0^{h} Area 20. Supplementary Stars + 45°

1s—40s				41s—80s				81s—120s				121s—160s				161s—200s			
Mag.	α 39^{m}	x	$y+20'$	Mag.	α 39^{m}	x	$y+20'$	Mag.	α 39^{m}	x	$y+20'$	Mag.	α 40^{m}	x	$y+20'$	Mag.	α 40^{m}	x	$y+20'$
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
18.54 2	16	92.2	21.3	18.20 2	30	94.7	28.4	18.63 2	40	96.5	14.1	16.47 7	6	1.1	31.2	18.61 2	24	4.3	30.5
15.07 10	16	92.2	22.8	13.52 14	30	94.8	20.6	17.36 2	41	96.6	12.5	18.61 2	7	1.2	10.8	18.67 2	26	4.5	30.6
15.16 10	17	92.4	19.1	18.67 2	30	94.8	25.0	12.30 15	42	96.8	15.0	18.81 2	7	1.3	14.1	18.18 2	27	4.7	10.4
17.39 2	17	92.5	20.0	17.94 2	31	94.9	19.4	18.71 2	44	97.2	14.3	18.52 2	10	1.7	12.2	17.50 2	27	4.7	32.2
17.63 2	17	92.5	20.4	16.52 7	31	94.9	27.1	14.58 11	45	97.3	13.1	18.67 2	11	1.8	11.2	17.84 2	27	4.8	14.5
17.32 3	18	92.6	19.1	18.43 2	31	94.9	27.3	18.61 2	46	97.6	11.3	13.32 15	10	1.8	32.0	18.45 2	28	5.0	11.5
18.56 2	18	92.7	17.8	16.99 3	31	94.9	28.0	18.63 2	46	97.6	13.5	17.63 2	11	1.9	31.5	18.25 2	28	5.0	11.7
18.23 2	19	92.8	19.8	18.73 2	32	95.0	17.2	17.36 2	46	97.6	14.4	18.17 2	11	2.0	30.9	18.59 2	28	5.0	12.2
17.06 3	20	92.9	19.5	18.67 2	32	95.0	24.0	17.79 2	48	97.9	12.7	18.61 2	12	2.1	10.2	17.95 2	29	5.0	31.1
17.75 2	20	93.0	16.2	18.61 2	32	95.0	26.8	17.33 2	49	98.0	13.7	15.87 8	13	2.3	11.2	13.34 13	29	5.1	9.9
17.77 2	20	93.0	24.1	18.61 2	32	95.1	16.4	13.78 13	50	98.2	30.7	16.70 7	13	2.3	31.4	17.56 2	29	5.1	12.8
18.54 2	21	93.1	21.1	14.32 12	32	95.1	27.5	17.73 2	51	98.5	14.5	17.26 3	14	2.4	14.1	18.47 2	30	5.2	14.0
16.97 3	21	93.1	23.9	18.43 2	33	95.2	13.3	18.69 2	51	98.5	14.6	16.78 7	14	2.5	9.6	18.81 2	30	5.2	14.6
18.54 2	21	93.2	16.1	16.65 7	33	95.2	13.8	17.98 2	52	98.6	30.6	16.78 6	14	2.5	12.6	18.75 2	31	5.4	12.6
17.58 2	21	93.2	16.9	18.61 2	33	95.2	14.3	18.37 2	53	98.7	30.9	16.75 7	15	2.6	11.7	18.67 2	31	5.5	10.8
16.92 5	22	93.2	22.2	17.13 3	33	95.2	15.7	16.47 7	53	98.8	11.1	15.78 8	15	2.7	9.9	18.59 2	32	5.6	13.3
18.27 2	21	93.2	22.9	17.31 3	33	95.2	20.2	18.67 2	53	98.8	12.6	18.73 2	16	2.9	13.3	17.48 2	33	5.8	14.0
17.37 2	21	93.2	26.2	16.80 7	32	95.2	26.0	18.63 2	54	98.9	12.3	15.39 9	17	3.0	10.7	18.73 2	33	5.8	30.0
18.52 2	22	93.3	17.7	14.68 11	33	95.2	27.7	16.66 7	54	99.0	11.0	17.12 2	18	3.1	11.7	18.33 2	33	5.8	32.0
15.32 10	22	93.4	20.9	18.37 2	34	95.4	14.0	18.63 2	54	99.0	12.1	14.43 10	18	3.2	10.0	12.59 15	33	5.9	9.7
18.48 2	23	93.5	19.0	17.77 2	34	95.4	14.5	18.67 2	54	99.0	13.3	16.80 4	18	3.2	11.7	17.79 2	34	5.9	12.0
16.55 7	24	93.6	18.4	18.73 2	34	95.4	22.3	18.71 2	55	99.1	14.4	14.94 10	18	3.2	14.1	17.75 2	35	6.2	11.7
17.95 2	24	93.6	20.8	18.65 2	34	95.5	15.1	17.70 2	55	99.2	14.1	17.93 2	18	3.2	14.3	17.42 2	35	6.2	30.1
16.37 7	24	93.6	23.9	13.73 14	34	95.5	28.2	18.45 2	56	99.3	11.3	18.59 2	18	3.2	31.4	18.07 2	35	6.2	30.3
18.37 2	23	93.6	26.4	18.41 2	35	95.6	18.8	18.19 2	57	99.5	10.8	16.79 7	19	3.3	30.0	17.53 2	35	6.2	31.9
17.16 3	24	93.7	17.1	16.63 7	35	95.6	21.1	16.79 7	59	99.9	11.3	13.49 13	19	3.4	11.0	15.54 8	36	6.3	14.1
17.23 3	26	94.0	17.0	18.25 2	36	95.7	18.2	15.64 8	60	0.0	12.6	15.21 10	20	3.4	32.4	18.63 2	36	6.3	30.5
15.71 8	26	94.0	19.7	16.68 7	36	95.7	19.0	17.52 2	60	0.0	30.6	16.72 7	20	3.5	12.7	17.26 2	36	6.4	12.0
17.19 3	26	94.1	26.5	16.98 3	36	95.7	24.5	18.00 2	61	0.2	10.0	18.01 2	20	3.5	31.8	18.54 2	37	6.4	31.7
17.23 3	27	94.2	18.3	18.59 2	35	95.7	28.7	17.65 2	61	0.2	13.1	18.09 2	20	3.5	31.9	18.52 2	37	6.6	10.9
15.02 10	27	94.2	25.0	18.33 2	36	95.8	12.7	16.69 7	61	0.2	14.9	18.35 2	22	3.8	13.6	18.50 2	38	6.7	14.3
18.54 2	28	94.3	14.9	18.03 2	36	95.8	14.1	16.61 7	61	0.2	30.7	18.57 2	22	3.9	13.6	18.61 2	38	6.7	30.3
18.61 2	28	94.3	15.2	18.77 2	36	95.8	19.5	15.02 10	63	0.5	14.3	17.83 2	22	3.9	13.9	16.88 5	39	6.8	10.4
16.74 7	28	94.3	16.1	17.67 2	36	95.8	21.4	16.78 7	63	0.6	13.5	16.77 6	22	3.9	14.5	17.29 3	39	6.8	13.7
16.99 2	28	94.3	22.3	17.23 3	37	95.9	21.5	17.81 2	64	0.7	10.1	18.27 2	22	3.9	32.0	18.71 2	39	6.9	12.1
18.73 2	28	94.3	22.7	15.71 8	37	95.9	23.9	18.65 2	65	0.9	13.0	13.63 12	23	4.0	32.0	18.67 2	39	6.9	13.0
15.74 8	28	94.4	27.1	18.37 2	37	95.9	28.3	17.81 2	66	1.0	10.1	10.41 9	23	4.1	31.7	18.57 2	39	6.9	14.5
15.33 10	29	94.5	20.9	18.61 2	37	96.0	24.3	17.41 2	66	1.0	12.1	18.63 2	24	4.2	10.9	18.52 2	40	7.0	11.0
18.51 2	29	94.6	14.3	18.13 2	38	96.2	13.5	16.58 7	66	1.0	12.8	18.35 2	24	4.2	11.0	17.71 2	40	7.0	13.4
18.61 2	29	94.6	15.7	17.35 2	39	96.3	13.4	17.57 2	66	1.0	30.7	18.54 2	24	4.3	30.3	18.20 2	40	7.1	30.7

25 prec. + $82^{\mathrm{s}}.6$, + 8′ 14″

0^{h} Area 20. Supplementary Stars + 45

201s—230s					231s—260s					261s—290s					291s—315s				
Mag.		α 40^{m}	x	$y+20'$	Mag.		α 41^{m}	x	$y+20'$	Mag.		α 41^{m}	x	$y+20'$	Mag.		α 41^{m}	x	$y+20'$
		s	′	′			s	′	′			s	′	′			s	′	′
18.54	2	41	7.2	10.4	18.12	2	3	11.0	18.3	18.61	2	8	12.0	23.9	16.66	7	16	13.3	25.2
18.67	2	41	7.2	11.6	18.79	2	3	11.0	24.8	18.67	2	8	12.0	25.4	16.96	5	16	13.4	18.0
18.54	2	41	7.2	31.4	16.28	7	3	11.0	26.0	17.71	2	9	12.1	26.1	18.56	2	17	13.4	25.3
17.19	3	41	7.3	11.1	16.38	7	3	11.1	14.2	18.01	2	9	12.1	26.4	15.73	8	17	13.5	23.5
15.96	8	41	7.3	14.3	16.18	7	3	11.1	14.9	18.67	2	9	12.2	24.6	15.95	8	17	13.6	20.0
12.74	15	43	7.6	13.9	16.81	7	3	11.1	15.6	18.41	2	9	12.2	25.0	17.75	2	17	13.6	20.8
16.55	7	44	7.7	12.4	18.73	2	4	11.2	15.8	18.67	2	10	12.2	26.0	18.37	2	17	13.6	22.9
16.79	7	44	7.8	13.0	17.96	2	4	11.3	22.7	18.47	2	10	12.3	16.8	18.31	2	17	13.6	24.0
17.79	2	46	8.0	15.0	17.17	3	4	11.3	24.0	18.63	2	10	12.3	24.9	17.93	2	17	13.6	24.6
18.67	2	46	8.2	12.6	16.92	7	4	11.3	25.4	16.86	7	11	12.5	20.4	14.37	11	18	13.8	18.8
18.29:	2	47	8.3	13.7	18.10	2	5	11.4	16.8	18.73	2	11	12.5	21.0	15.41	8	19	13.8	21.7
18.49	2	48	8.4	30.8	17.03	3	5	11.4	22.0	14.90	10	11	12.5	23.4	17.15	3	19	13.8	24.2
18.05	2	48	8.4	30.9	16.83	7	5	11.5	16.0	18.61	2	11	12.5	27.4	18.54	2	19	13.8	24.9
16.24	7	50	8.7	12.2	18.79	2	5	11.5	22.4	18.47	2	12	12.6	16.0	18.38	2	19	13.8	25.7
18.73	2	51	8.9	13.7	13.92	11	6	11.6	13.1	15.45	9	12	12.6	20.1	17.71	2	19	13.9	21.9
18.49	2	51	9.0	13.0	17.77	2	6	11.6	24.3	17.09	3	12	12.6	25.0	17.25	3	19	13.9	24.0
18.04	2	51	9.0	13.5	15.03	10	6	11.6	27.6	15.38	9	12	12.6	26.2	17.13	3	19	13.9	24.9
18.47	2	51	9.0	30.5	18.69	2	7	11.7	17.4	18.49	2	12	12.7	25.7	16.15	7	20	14.0	17.3
11.81	14	52	9.1	30.0	18.79	2	7	11.7	22.2	18.23	2	12	12.7	26.4	17.91	2	20	14.0	18.2
18.61	2	53	9.3	12.0	18.17	2	7	11.7	23.8	18.56	2	13	12.8	16.1	18.61	2	20	14.1	23.8
15.42	9	53	9.3	14.0	18.12	2	7	11.8	13.9	18.55	2	13	12.8	22.1	18.61	2	21	14.2	18.6
18.45	2	54	9.4	30.6	14.86	10	7	11.8	14.2	15.28	10	13	12.8	22.6	17.65	2	21	14.2	22.0
18.73	2	55	9.6	13.7	18.33	2	7	11.8	14.7	18.54	2	13	12.8	27.0	17.67	2	22	14.4	19.3
17.50	2	56	9.8	13.0	15.31	9	7	11.8	14.8	16.59	7	13	12.9	24.3	18.30	2	23	14.5	21.0
18.13	2	56	9.8	13.7	16.62	7	7	11.8	15.0	15.54	8	14	12.9	27.2	18.49	2	24	14.7	22.2
18.51	2	56	9.8	14.5	17.29	3	8	11.9	16.9	18.49	2	14	13.0	14.8					
16.82	7	60	10.5	14.5	17.77	2	8	11.9	17.3	17.27	2	14	13.0	21.0					
18.63	2	60	10.6	14.0	16.91	7	8	11.9	20.0	18.61	2	15	13.1	25.3					
18.54	2	61	10.8	12.2	18.73	2	8	12.0	18.6	18.61	2	15	13.2	16.2					
17.67	2	62	10.8	13.8	18.69	2	8	12.0	23.7	16.89	7	15	13.2	19.4					

25 prec. + $82^{\mathrm{s}}.7$, + 8′ 13″

1^{h} Area 21. Center for 1900: 1^{h} 36^{m} + 45° 0′ (15′ × 15′) + 44°, + 45°

1—20					21—40					41—60					61—80					81—100				
Mag.		α 35^{m}	x	$y+60'$ / y	Mag.		α 35^{m}	x	$y+60'$ / y	Mag.		α 35^{m}	x	$y+60'$ / y	Mag.		α 35^{m}	x	$y+60'$ / y	Mag.		α 35^{m}	x	$y+60'$ / y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
16.11	10	9.3	91.05	6 46	16.70	9	13.5	91.77	55 16	15.71	10	18.8	92.72	1 18	15.54	11	23.5	93.55	7 30	18.16	3	28.3	94.40	2 54
17.68	3	9.5	91.09	7 43	18.05w	2	14	91.8	56 18	16.69	9	19.2	92.80	2 05	12.57	18	23.7	93.58	9 23	18.11	3	28.9	94.50	9 27
18.09	3	9.7	91.11	0 21	18.28	3	13.9	91.85	7 01	18.16	3	19.3	92.80	59 03	18.04	3	23.7	93.59	4 18	14.71	14	29.0	94.51	58 34
18.20	3	10.0	91.17	8 04	16.24	9	14.4	91.95	5 03	14.26	14	19.6	92.86	5 13	16.70	9	24.6	93.75	3 02	17.18	4	29.1	94.54	8 58
15.27	11	10.2	91.19	56 11	18.18	3	14.8	92.01	8 51	17.48	3	19.9	92.92	9 59	17.69	3	24.9	93.79	59 16	16.78	9	29.2	94.55	57 03
16.92	7	10.9	91.32	3 54	18.11	3	14.9	92.03	9 13	18.01	3	20.3	92.99	7 44	15.20	12	24.9	93.80	0 23	12.90	17	29.6	94.64	1 21
16.49	10	11.1	91.36	10 00	16.79	9	15.4	92.10	57 39	16.91	6	20.3	92.99	56 39	16.97	7	24.9	93.80	6 49	15.05	12	29.9	94.69	9 35
14.68	14	11.2	91.39	5 32	16.99	6	15.5	92.13	9 04	18.19w	2	20	93.0	1 24	18.50	3	25.0	93.82	2 18	17.67	3	30.0	94.70	6 55
18.29	3	11.3	91.40	7 29	11.72	16	15.9	92.20	6 04	17.68	3	20.7	93.06	5 10	17.40	3	25.8	93.95	57 27	16.73	9	30.4	94.77	9 14
15.69	10	11.5	91.44	5 25	16.73	9	16.0	92.21	58 42	16.73	9	20.8	93.08	9 08	18.02w	2	26	94.0	55 12	15.60	10	30.9	94.86	5 21
16.52	9	12.0	91.51	56 44	16.59	9	16.2	92.27	1 28	18.01	3	21.4	93.19	0 14	17.81	3	26.1	94.00	55 57	16.98	9	31.0	94.88	1 12
18.16	3	12.2	91.55	6 11	16.73	7	17.2	92.42	59 37	16.85	9	21.8	93.25	7 42	17.97	3	26.2	94.01	57 51	17.24	5	31.3	94.94	4 14
16.86	8	12.3	91.57	6 56	17.78	1	17.3	92.45	59 39	18.12	3	22.0	93.29	0 28	18.19	3	26.1	94.02	4 09	18.46	3	31.3	94.94	0 32
16.56	9	12.6	91.61	58 43	17.32	3	17.4	92.49	4 47	17.48	3	22.2	93.31	3 30	16.89	9	27.0	94.17	3 16	18.09	3	31.9	95.03	3 20
16.80	9	12.9	91.68	1 28	16.55	10	17.9	92.57	6 01	17.88	3	22.6	93.39	56 53	17.20	3	27.0	94.17	9 39	15.46	12	32.2	95.08	6 25
16.77	8	13.1	91.70	58 46	18.19	3	18.0	92.58	1 30	17.46	3	22.8	93.41	55 25	16.22	10	27.3	94.21	9 21	16.92	8	32.2	95.08	59 35
17.82	3	13.2	91.72	57 14	18.04w	2	18	92.6	5 18	15.22	12	22.9	93.44	58 31	16.97	1	27.5	94.26	0 25	17.73	3	32.3	95.10	3 03
17.63	3	13.3	91.74	57 46	14.61	14	18.4	92.65	4 07	16.49	9	23.2	93.48	55 05	18.21	3	27.9	94.32	56 13	14.49	14	32.4	95.11	55 33
17.68	3	13.4	91.76	5 19	16.95	8	18.5	92.67	0 10	15.69	10	23.3	93.52	7 39	16.89	9	28.2	94.36	57 46	16.11	9	32.4	95.12	57 14
17.97	3	13.4	91.76	8 12	17.38	3	18.7	92.69	59 55	17.84	3	23.4	93.53	57 09	18.04	3	28.2	94.39	9 16	18.46	3	32.6	95.17	1 24

25 prec. + $90^{\mathrm{s}}.4$, + 7′ 38″

101—160

Mag.		α 35^{m}	x	$y+60'$ / y
		s	′	′ ″
17.80	3	33.4	95.30	3 27
16.53	10	33.4	95.30	9 31
18.38	3	34.2	95.44	8 30
15.50	10	34.2	95.45	7 49
18.47	3	34.3	95.46	4 55
12.66	16	34.7	95.54	2 52
17.26	5	35.6	95.68	2 46
18.06	3	35.6	95.69	7 20
18.18	3	35.8	95.71	59 49
16.59	9	36.2	95.79	56 18
16.65	9	36.3	95.80	55 43
15.26	12	36.4	95.82	55 56
18.28	3	36.4	95.84	1 58
16.69	9	36.5	95.85	55 51
16.85	9	36.7	95.89	0 22
18.00	3	37.2	95.97	9 27
14.31	13	37.3	95.99	58 15
15.36	12	38.2	96.15	57 15
16.73	9	38.6	96.22	9 16
17.34	4	38.9	96.26	7 41
14.78	12	39.0	96.28	7 55
17.75	3	39.5	96.39	7 19
17.66	2	39.8	96.44	7 45
16.80	9	39.9	96.45	56 06
15.85	8	40.1	96.48	7 46
17.65	3	40.2	96.50	3 48
17.70	3	40.6	96.56	0 55
17.88	3	40.6	96.56	7 36
17.54	3	40.7	96.60	7 28
16.71	9	41.2	96.66	55 53
17.48	4	41.1	96.67	1 51
15.43	12	41.5	96.73	9 49
17.17	8	41.7	96.77	1 22
14.65	12	41.8	96.78	7 48
16.92	9	41.8	96.79	59 39
15.35	12	41.8	96.79	56 34
16.72	9	41.8	96.79	4 06
16.95	8	42.4	96.88	9 58
17.99	3	42.5	96.91	55 35
16.73	10	42.9	96.99	59 23
18.20	3	43.0	97.00	55 13
16.17	10	43.0	97.00	4 51
16.08	10	43.0	97.00	5 28
18.37	3	43.8	97.14	6 07
16.72	9	44.0	97.16	8 37
18.23	3	44.0	97.17	0 34
18.30	3	44.6	97.28	0 50
17.31	7	44.8	97.32	2 00
16.25	10	44.9	97.33	4 30
18.21	3	44.9	97.34	57 02
16.54	9	45.0	97.35	8 24
18.35	3	45.2	97.39	2 24
14.10	14	45.7	97.47	57 13
17.43	5	45.7	97.48	2 38
15.73	10	45.7	97.49	1 08
16.68	9	45.8	97.50	0 22
18.44	3	45.9	97.52	6 26
18.29	3	45.9	97.52	8 50
18.04	3	46.0	97.53	5 46
18.09	3	46.3	97.59	9 48

161—220

Mag.		α 35^{m}	x	$y+60'$ / y
		s	′	′ ″
16.98	9	47.0	97.70	6 54
18.34	2	47.5	97.80	9 29
12.81	15	47.9	97.86	59 44
17.02	9	47.9	97.87	6 54
17.06	6	48.0	97.88	0 22
18.08	3	48.2	97.91	55 32
17.48	4	48.6	97.98	5 54
17.23	8	48.7	98.01	3 16
17.88	3	48.9	98.04	8 26
17.75	3	49.0	98.06	5 00
16.80	8	49.9	98.21	0 49
18.12	3	50.0	98.24	2 39
18.15	2	50.0	98.24	57 59
17.84	3	50.2	98.27	56 06
15.19	12	50.5	98.33	2 22
17.89	3	50.6	98.34	3 16
17.41	3	50.6	98.34	9 43
10.03w	10	50.7	98.37	4 17
16.65	7	51.3	98.46	55 15
16.64	9	51.7	98.54	0 51
18.73	2	51.7	98.54	5 00
17.91	3	51.8	98.55	1 14
15.77	10	52.0	98.58	3 33
17.70	3	52.3	98.65	8 35
16.23	10	52.7	98.71	7 48
18.10	3	53.1	98.79	8 00
17.54	3	53.2	98.80	5 23
15.57	11	53.4	98.83	56 24
18.02	3	53.4	98.84	56 05
15.13	12	53.9	98.93	6 25
17.88	3	54.1	98.96	56 21
15.90	10	54.6	99.05	56 36
18.56	3	54.9	99.10	3 56
17.94	3	55.0	99.12	9 35
15.46	12	55.0	99.12	7 30
16.73	9	55.3	99.16	8 06
16.95	9	55.7	99.24	6 15
16.82	9	56.1	99.31	6 40
16.78	9	56.3	99.35	58 52
17.88	3	56.4	99.36	6 59
16.81	9	56.4	99.37	56 45
14.90	13	56.8	99.44	2 37
18.51	1	57.0	99.46	6 34
17.80	3	57.0	99.47	4 41
17.64	3	57.3	99.53	56 19
15.60	10	57.8	99.61	56 45
17.84	3	57.9	99.64	1 46
16.00	10	58.6	99.75	3 41
18.49	3	58.7	99.76	8 40
17.16	6	58.9	99.81	5 30
17.72	3	59.1	99.84	0 30
13.92	16	59.1	99.84	59 11
17.75	3	59.2	99.86	1 12
17.49	3	59.2	99.87	56 50
17.94	3	60.3	0.05	8 20
18.19	3	60.5	0.08	59 43
16.62	9	60.6	0.10	6 50
17.65	3	60.7	0.12	1 20
16.57	9	61.4	0.25	57 31
18.33	3	61.5	0.26	4 40

221—280

Mag.		α 36^{m}	x	$y+60'$ / y
		s	′	′ ″
18.12	3	1.7	0.30	55 46
17.80	3	1.9	0.33	9 49
17.94	3	2.1	0.36	59 05
18.07	3	2.1	0.36	59 42
12.57	18	2.1	0.36	4 53
18.33	3	2.2	0.39	2 45
17.17	8	2.2	0.39	5 49
16.86	8	3.0	0.54	57 26
18.12	3	3.1	0.55	3 17
17.60	3	3.3	0.58	58 41
17.92	3	3.5	0.62	8 58
18.31	3	3.6	0.64	5 19
15.45	12	3.8	0.67	9 21
17.48	3	5.3	0.93	55 07
18.03	3	5.3	0.93	58 10
16.84	9	5.9	1.05	7 18
17.94	3	6.3	1.11	57 33
17.74	3	6.4	1.13	9 49
18.03	3	6.4	1.14	56 28
16.78	9	7.2	1.26	8 21
18.32	3	7.2	1.26	9 28
18.11	3	7.7	1.36	6 24
17.62	3	7.7	1.36	3 32
16.86	9	8.1	1.44	9 27
16.69	8	8.3	1.46	8 59
16.35	9	8.3	1.47	55 54
17.14	6	8.5	1.50	5 52
17.89	3	8.5	1.51	58 12
17.06	8	8.6	1.52	5 47
17.22	6	8.9	1.56	4 50
18.36	2	9.2	1.63	4 01
18.08	3	9.4	1.66	7 56
15.85	10	9.6	1.70	58 57
18.13	3	9.7	1.71	56 14
17.31	3	9.7	1.71	2 40
17.81	3	10.0	1.76	59 50
18.37	3	10.2	1.80	3 21
14.51	14	10.3	1.82	56 54
16.16	10	10.6	1.86	1 57
16.88	9	11.2	1.98	57 48
13.61	16	11.4	2.02	9 00
17.43	3	11.7	2.06	7 45
13.43	16	11.7	2.06	55 43
17.85	3	12.1	2.14	4 14
17.76	3	12.7	2.25	3 21
15.48	12	13.0	2.30	3 24
17.84	3	13.2	2.33	57 24
18.12	3	13.3	2.35	57 11
17.57	3	13.4	2.36	58 00
18.21	3	13.4	2.37	57 04
18.18	3	13.7	2.43	57 17
18.15	3	13.8	2.43	1 24
16.81	8	13.8	2.45	55 07
15.21	12	14.2	2.50	4 55
17.10	6	14.2	2.51	7 20
17.85	3	14.3	2.53	4 05
16.83	8	14.9	2.64	1 48
18.14	3	15.0	2.65	58 57
15.24	12	15.2	2.69	8 43
16.62	9	15.7	2.78	6 37

281—340

Mag.		α 36^{m}	x	$y+60'$ / y
		s	′	′ ″
18.17w	2	16	2.8	55 30·
17.48	3	15.9	2.81	0 46
18.23	3	16.0	2.83	4 53
18.06	3	16.1	2.85	0 00
18.49	3	17.8	3.15	2 02
14.31	13	17.9	3.17	·2 35
18.20	3	17.9	3.17	6 43
17.39	3	18.2	3.22	56 42
15.18	12	18.5	3.28	58 17
17.91	3	18.7	3.31	0 56
18.37	3	18.8	3.32	8 04
17.65	3	19.2	3.40	8 43
17.56	3	19.5	3.45	3 37
13.69	16	19.6	3.46	9 25
13.25	15	19.6	3.47	2 06
17.68w	2	20	3.5	5 12
15.75	10	20.0	3.54	7 58
14.51	14	20.2	3.56	5 39
16.69	9	20.2	3.57	1 53
18.21	3	20.6	3.64	8 07
16.95	8	20.6	3.65	4 04
17.40	3	20.6	3.65	1 14
17.96	3	21.0	3.72	6 00
17.36	3	21.2	3.75	4 30
16.67	9	21.5	3.81	57 17
17.61	3	21.7	3.84	5 09
17.61	3	21.9	3.87	7 18
14.80	11	22.1	3.91	55 12
17.68	3	22.2	3.93	56 57
17.41	3	22.2	3.93	9 11
17.86	1	22.5	3.98	5 41
18.38	2	22.6	4.00	3 38
17.85	2	23.1	4.09	0 15
16.83	7	23.2	4.11	56 35
18.08	3	23.6	4.17	3 37
17.27	3	23.9	4.22	9 55
18.08	3	24.1	4.26	58 36
17.65	3	24.4	4.32	5 40
18.00	3	24.5	4.33	56 32
17.23	3	25.1	4.43	1 02
16.75	9	25.2	4.46	58 19
17.60	3	25.4	4.49	2 25
16.62	9	25.7	4.54	0 14
18.04	3	25.7	4.55	8 35
15.97	10	25.8	4.57	5 50
17.59	3	26.2	4.64	8 54
18.27	3	26.3	4.65	8 49
16.88	8	26.3	4.65	59 29
17.49	3	27.0	4.76	3 35
13.23	16	27.2	4.81	5 07
17.32	3	27.6	4.88	5 37
16.85	9	27.9	4.94	2 21
18.11	3	28.1	4.97	6 20
16.96	6	28.6	5.05	2 25
16.02	9	28.8	5.10	56 28
16.08	10	29.2	5.16	8 24
16.54	9	29.3	5.19	56 34
18.20	3	29.6	5.24	3 18
16.36	10	29.9	5.28	6 25
17.83	3	30.2	5.34	5 43

341—353

Mag.		α 36^{m}	x	$y+60'$ / y
		s	′	′ ″
18.20:	2	30.2	5.35	55 56
16.14	10	30.4	5.37	6 35
17.69	3	30.8	5.44	1 03
18.20	3	30.9	5.46	3 17
14.87	13	30.9	5.47	5 48
14.39	14	31.2	5.52	3 36
17.74	3	31.5	5.59	55 41
17.76	3	32.5	5.74	5 18
17.56	3	32.5	5.74	7 36
17.83	3	32.6	5.77	8 14
16.90	6	33.1	5.86	2 24
16.80	1	33.2	5.88	55 00
14.57	14	33.8	5.96	6 45

25 prec. $+ 90^{s}.5$, $+ 7' 38''$

1s—60s					61s—120s					121s—180s					181s—240s					241s—300s				
Mag.		α 34^{m}	x	$y+60'$ / y	Mag.		α 35^{m}	x	$y+60'$ / y	Mag.		α 35^{m}	x	$y+60'$ / y	Mag.		α 35^{m}	x	$y+60'$ / y	Mag.		α 36^{m}	x	$y+60'$ / y
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
14.91	11	48	87.2	2.6	16.15	8	6	90.5	59.1	18.17	2	33	95.2	14.0	18.32	2	59	99.9	11.4	16.66	8	34	6.1	58.3
15.22	10	48	87.2	3.2	14.28	10	6	90.5	1.6	18.09	2	33	95.3	12.6	16.68	8	60	0.0	53.5	18.13	2	35	6.1	6.0
17.48	2	48	87.2	4.5	15.92	6	6	90.5	1.8	18.09	2	35	95.5	53.3	18.02	2	60	0.0	54.2	16.58	8	35	6.2	56.9
14.24	12	48	87.4	4.3	17.76	2	6	90.5	3.2	18.32	2	36	95.8	11.1	17.91	2	61	0.2	15.3	18.24	2	35	6.2	3.4
18.07	2	50	87.7	7.7	15.11	10	6	90.5	9.9	18.11	2	37	95.9	10.8	15.99	8	62	0.4	12.5	18.08	2	36	6.3	56.6
16.20	8	51	87.8	1.0	16.72	8	7	90.6	59.4	18.17	2	37	96.0	54.9	18.00	2	63	0.4	14.4	17.57	2	36	6.4	58.6
18.13	2	51	87.8	3.4	16.68	8	7	90.6	0.6	17.15	2	37	96.0	14.2	18.09	2	63	0.5	53.5	18.22	2	36	6.4	59.8
15.93	8	51	87.9	4.8	18.15	2	7	90.6	9.3	17.82	2	38	96.1	53.1	16.60	8	63	0.6	13.6	18.00	2	36	6.4	6.1
18.02	2	52	88.0	2.8	18.07	2	7	90.7	57.4	18.17	2	38	96.1	13.1	18.07	2	64	0.7	54.2	16.96	5	37	6.5	1.6
15.85	8	52	88.0	3.5	16.73	8	7	90.7	1.3	17.46	2	39	96.2	53.9	16.30	8	65	0.8	53.4	16.69	8	37	6.5	5.9
17.81	2	53	88.2	59.9	16.82	8	7	90.7	2.5	18.19	2	38	96.2	13.1	17.76	2	65	0.8	54.6	15.77	8	37	6.6	56.8
18.02	2	53	88.2	2.4	16.47	8	7	90.7	8.9	18.05	2	39	96.2	14.2	16.83	5	65	0.8	14.3	16.70	8	37	6.6	2.0
18.02	2	53	88.2	6.5	17.24	2	8	90.8	59.2	15.49	7	39	96.3	10.4	17.34	2	65	0.9	14.3	18.26	2	38	6.6	5.6
15.19	10	53	88.2	7.5	18.22	2	8	90.8	0.6	17.50	2	39	96.3	14.5	17.57	2	66	1.0	11.1	17.78	2	38	6.7	5.2
16.53	8	54	88.3	58.8	18.05	2	8	90.8	1.1	18.26	2	40	96.5	12.5	18.24	2	66	1.1	10.5	16.92	4	38	6.7	7.5
15.32	10	54	88.4	5.6	14.16	12	9	90.9	59.4	17.92	2	41	96.6	11.1	15.51	9	67	1.2	14.5	18.11	2	38	6.7	11.0
18.13	2	55	88.5	1.0	18.19	2	8	90.9	5.7	16.39	8	41	96.6	14.7	16.79	6	67	1.3	13.0	18.09	2	38	6.8	0.2
18.17	2	55	88.5	6.4	17.92	2	8	90.9	9.8	15.59	8	42	96.8	11.3	15.57	8	67	1.3	13.8	16.64	6	39	6.8	0.6
18.05	2	56	88.6	59.0	17.22	2	8	90.9	11.2	15.23	10	42	96.9	52.9	18.11	2	68	1.4	54.7	11.18	13	38	6.8	0.7
16.52	8	56	88.6	2.0	17.92	2	9	91.0	56.4	12.60	14	43	97.0	10.9	16.82	8	69	1.6	11.0	18.19	2	39	6.8	4.8
16.77	8	55	88.6	4.0	15.84	8	10	91.1	10.4	18.26	2	43	97.0	11.0	14.65	11	71	2.0	54.4	17.94	2	39	6.8	6.0
16.56	8	55	88.6	6.2	17.74	2	12	91.5	11.8	15.62	8	43	97.0	12.1	15.52	9	71	2.0	12.9	16.72	8	39	6.8	7.2
18.02	2	55	88.6	6.7	16.20	8	12	91.6	12.9	18.13	2	44	97.1	54.0	17.98	2	72	2.1	10.6	17.18	2	39	6.8	8.0
17.34	2	57	88.8	0.5	18.15	2	14	91.8	10.8	17.93	2	44	97.1	54.7	17.96	2	72	2.1	14.2	16.69	8	39	6.8	10.0
18.15	2	57	88.8	1.9	17.93	2	14	91.8	13.0	14.84	11	44	97.1	10.3	17.80	2	72	2.2	11.1	17.66	2	39	6.8	10.7
18.15	2	57	88.8	2.0	16.25	8	14	91.9	13.1	18.09	2	44	97.2	12.3	13.41	13	74	2.5	11.1	18.07	2	39	6.9	57.2
16.49	8	57	88.8	4.0	17.76	2	15	92.0	54.9	18.11	2	45	97.4	10.8	18.17	2	74	2.5	12.7	17.34	2	39	6.9	2.9
17.05	3	57	88.9	8.9	16.24	8	16	92.2	12.0	18.11	2	46	97.5	53.5	18.04	2	75	2.6	10.4	18.17	2	39	6.9	8.1
16.59	8	58	89.0	59.3	16.36	8	16	92.3	10.5	18.04	2	46	97.5	12.4	16.70	8	75	2.6	11.7	17.29	2	41	7.2	58.0
17.77	2	58	89.0	0.8	18.11	2	17	92.5	10.2	17.39	2	46	97.6	11.7	18.11	2	75	2.7	10.3	18.07	2	41	7.2	0.6
18.17	2	58	89.0	4.9	17.91	2	21	93.0	55.0	16.00	8	47	97.7	54.6	12.98	16	75	2.7	11.8	15.67	8	41	7.2	1.0
15.26	10	58	89.1	9.8	17.42	2	20	93.0	10.7	17.89	2	48	97.8	10.5	17.94	2	75	2.7	12.0	16.77	8	41	7.2	1.5
15.62	8	59	89.2	59.4	12.27	13	21	93.1	11.7	18.00	2	48	97.8	13.0	14.05	12	76	2.8	11.3	17.96	2	41	7.2	5.7
16.73	8	59	89.2	8.0	17.82	2	21	93.1	13.6	16.55	8	48	97.9	52.9	17.18	2	77	3.0	11.0	17.16	2	41	7.2	7.6
15.44	8	59	89.3	2.2	17.62	2	21	93.2	10.9	16.94	6	48	97.9	12.1	16.69	8	78	3.1	13.2	17.34	2	41	7.3	57.9
17.31	2	60	89.4	9.7	16.94	5	21	93.2	11.2	15.33	10	48	97.9	12.6	18.13	2	78	3.1	13.8	16.63	6	41	7.3	0.5
17.34	2	60	89.4	10.4	17.24	2	23	93.4	11.2	17.92	2	48	97.9	13.3	17.84	2	78	3.2	10.2	15.35	10	42	7.4	2.4
18.06	2	61	89.5	1.8	18.26	2	23	93.5	10.8	17.82	2	48	98.0	13.0	17.94	2	79	3.4	10.0	17.60	2	42	7.5	59.4
18.02	2	61	89.6	58.6	16.71	8	24	93.6	54.8	17.82	2	49	98.1	14.8	11.27	7	80	3.4	10.8	17.91	2	44	7.8	59.1
17.83	2	61	89.6	1.3	16.41	8	24	93.6	12.8	16.63	8	49	98.1	15.5	18.19	2	80	3.5	11.9	16.56	8	44	7.8	9.4
17.32	2	61	89.6	1.5	16.67	8	24	93.6	13.5	17.78	2	51	98.5	11.7	18.13	2	80	3.5	13.0	18.03	2	45	8.0	0.3
16.73	8	61	89.6	4.2	10.44	8	25	93.8	54.4	16.81	4	52	98.6	53.3	17.29	2	80	3.6	11.0	18.11	2	46	8.0	2.2
16.67	7	61	89.6	4.4	17.79	2	25	93.8	10.2	18.26	2	52	98.6	11.8	17.85	2	81	3.7	14.1	17.59	2	45	8.0	2.6
16.92	5	61	89.6	6.4	15.05	10	25	93.8	12.8	17.83	2	52	98.6	12.0	16.71	6	82	3.8	11.8	18.07	2	45	8.0	4.0
14.39	12	62	89.7	9.9	18.19	2	26	94.0	10.2	15.12	10	53	98.7	54.4	17.02	3	83	4.0	54.8	14.37	12	45	8.0	10.0
15.88	8	62	89.8	7.4	17.55	2	26	94.0	14.6	16.48	8	53	98.8	53.6	14.19	12	83	4.0	10.1	16.78	6	46	8.1	2.8
16.91	5	62	89.8	9.3	17.96	2	27	94.1	12.2	18.15	2	53	98.8	14.2	14.43	12	83	4.0	12.4	18.13	2	47	8.3	2.0
17.89	2	63	89.9	58.8	16.68	8	26	94.1	13.8	18.11	2	54	98.9	14.0	17.63	2	84	4.2	12.7	17.54	2	48	8.4	0.9
17.78	2	63	89.9	0.3	17.89	2	26	94.1	14.4	15.31	10	54	98.9	15.0	15.93	8	87	4.8	10.9	18.02	2	48	8.5	2.4
16.86	7	63	89.9	3.0	18.00	2	28	94.4	10.5	18.00	2	54	99.0	53.5	18.11	2	87	4.8	11.0	18.13	2	48	8.5	2.6
16.50	8	63	90.0	58.9	17.44	2	29	94.5	10.4	15.08	10	54	99.0	15.0	15.77	8	88	5.0	12.3	18.11	2	48	8.5	7.8
16.70	8	64	90.1	0.3	17.98	2	29	94.5	10.5	11.36	14	55	99.1	10.1	16.68	8	88	5.0	12.7	16.59	8	49	8.6	1.8
16.72	8	64	90.1	3.1	17.49	2	30	94.7	14.1	12.88	14	55	99.2	54.2	15.26	9	89	5.1	12.2	16.34	8	49	8.6	4.8
12.02	15	64	90.1	3.8	17.98	2	30	94.8	12.0	12.17	12	57	99.4	53.6	17.84	2	89	5.1	13.0	16.58	8	49	8.6	5.0
18.26	2	64	90.1	7.2	16.62	8	31	94.9	12.4	16.74	5	57	99.5	15.0	18.11	2	90	5.3	10.7	15.80	8	51	9.0	6.6
14.60	12	65	90.2	0.0	16.75	8	32	95.0	10.9	17.72	2	58	99.6	13.2	17.46	2	90	5.3	11.9	16.74	7	52	9.2	4.7
18.02	2	65	90.2	2.0	17.36	2	32	95.1	15.0	16.87	6	58	99.7	11.7	16.85	5	91	5.4	11.6	18.00	2	54	9.5	6.2
16.34	8	66	90.4	5.0	17.85	2	33	95.2	53.6	17.22	2	58	99.7	14.1	18.07	2	92	5.6	58.6	18.06	2	54	9.6	3.8
15.56	8	66	90.4	7.6	13.59	13	33	95.2	13.3	14.85	11	58	99.7	14.7	17.22	2	94	6.0	1.8	16.56	8	54	9.6	5.6
15.98	8	66	90.4	12.2	16.56	8	33	95.2	13.6	16.84	5	59	99.8	14.7	17.82	2	94	6.0	11.3	16.40	8	55	9.7	5.0

25 prec. $+ 90^{\mathrm{s}}.4$, $+ 7' 38''$

Area 22. Center for 1900: $2^h\ 38^m + 45° 10'$ $(15' \times 15')$

1—60					61—120					121—180					181—240					241—300				
Mag.		α 37^m	x	$y+10'$	Mag.		α 37^m	x	$y+10'$	Mag.		α 37^m	x	$y+10'$	Mag.		α 38^m	x	$y+10'$	Mag.		α 38^m	x	$y+10'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
15.10	14	29.3	94.60	12 45	16.32	11	41.5	96.73	6 40	17.27	8	52.1	98.61	18 08	17.35	6	3.5	0.61	9 52	18.95x	1	15.6	2.75	14 58
16.00	12	29.4	94.63	17 14	14.38	14	41.4	96.74	17 57	17.04	10	52.5	98.69	5 56	15.57	13	3.5	0.62	13 19	18.22	4	15.7	2.77	13 19
15.54	12	29.6	94.65	14 21	17.70	4	41.4	96.74	18 35	19.10	3	52.6	98.70	11 51	18.31	4	3.7	0.65	11 50	18.22	4	16.1	2.84	11 23
13.82	12	29.8	94.69	14 37	17.37	8	41.5	96.74	11 54	16.14	11	52.6	98.70	16 44	16.94	10	4.0	0.71	5 18	16.74	10	16.1	2.85	6 15
17.80	4	30.1	94.74	10 31	13.14	17	41.5	96.75	12 52	17.34	8	52.7	98.72	7 47	18.37	3	4.3	0.76	10 27	17.99	4	16.4	2.88	19 21
17.84	4	30.2	94.77	18 51	15.14	13	41.5	96.75	13 15	17.71	5	53.1	98.78	8 33	16.19	12	4.3	0.77	7 30	17.65	5	16.4	2.89	14 23
15.40	13	30.5	94.81	16 34	18.05	4	41.7	96.76	5 00	15.26	14	53.1	98.78	16 22	18.29	3	4.5	0.80	8 34	16.20	12	16.5	2.92	8 07
18.50	3	30.6	94.83	18 36	16.44	9	41.7	96.76	7 58	17.62	4	53.1	98.79	10 18	17.15	10	5.2	0.91	13 24	17.99	4	16.8	2.96	5 47
18.45	3	30.7	94.84	6 27	17.30	9	41.9	96.80	7 03	18.02	4	53.2	98.80	16 33	17.49	8	5.4	0.95	13 27	17.45	5	16.9	2.98	12 24
18.33	3	30.8	94.85	7 27	16.88	10	41.9	96.82	10 52	18.11	4	53.2	98.80	17 44	17.78	4	5.5	0.97	10 52	15.88	12	17.4	3.07	10 41
18.02	3	30.8	94.86	17 30	17.53	4	42.0	96.83	15 59	18.53	1	53.7	98.90	15 14	18.73	3	5.6	0.98	7 50	18.54	3	17.6	3.11	8 17
17.32	4	30.8	94.87	10 45	17.08	10	42.2	96.86	18 21	18.23	4	54.2	98.98	7 12	14.20	14	5.8	1.02	7 29	17.20	5	17.7	3.11	17 12
16.41	11	31.0	94.90	12 19	16.68	10	42.2	96.86	11 50	15.73	13	54.5	99.04	5 18	18.91	3	5.8	1.03	14 41	17.54	7	17.7	3.12	11 38
17.19	8	31.4	94.96	9 56	16.79*	1	42.3	96.88	13 55	17.81	4	54.8	99.08	7 40	13.39	16	6.1	1.06	19 06	17.40	8	17.8	3.13	17 16
16.76	11	31.9	95.05	13 35	17.06	9	42.4	96.90	8 32	18.91	3	54.8	99.09	11 58	18.23	2	6.5	1.14	19 00	17.39	7	17.8	3.15	7 16
18.11	3	32.2	95.10	14 35	18.89	3	42.5	96.91	6 32	18.16	4	55.3	99.16	13 45	18.24	3	6.5	1.14	19 41	17.88	5	17.9	3.16	8 02
16.88	11	32.5	95.17	12 34	18.25	3	42.5	96.91	14 58	17.18	8	55.2	99.16	19 18	16.96	10	6.5	1.15	19 18	13.36	18	18.1	3.19	16 15
17.90	4	32.5	95.17	11 44	18.43	1	42.5	96.91	13 54	17.10	10	55.4	99.20	19 43	17.80	4	6.7	1.18	5 48	17.00	10	18.3	3.22	14 51
17.41	6	32.8	95.22	18 42	16.61	10	42.6	96.94	19 36	18.70	3	55.5	99.22	15 28	18.21	3	6.8	1.20	16 44	17.20	10	18.3	3.22	16 39
17.76	4	32.9	95.24	14 05	18.62	3	42.7	96.97	18 46	18.25	4	55.7	99.25	19 08	18.75	3	7.3	1.28	18 43	17.50	6	18.3	3.23	6 15
17.46	4	33.1	95.26	15 08	16.96	10	42.9	96.98	13 25	15.11	14	55.8	99.27	14 35	18.85	3	7.3	1.29	13 19	17.17	10	18.3	3.23	12 11
17.05	10	33.2	95.28	14 28	17.10	9	43.0	97.02	18 32	18.20	4	56.1	99.31	11 28	17.04	10	7.6	1.35	5 02	15.93	12	18.5	3.27	13 51
17.56	4	33.3	95.30	19 41	16.52	10	43.1	97.03	18 53	16.07	11	56.2	99.33	16 19	18.85	3	8.0	1.40	18 51	18.10	3	18.8	3.32	13 05
17.78	4	33.3	95.30	19 33	18.04	3	43.3	97.07	12 20	18.17	4	56.3	99.35	9 29	16.81	10	8.1	1.42	18 34	17.43	8	18.9	3.33	16 23
18.11	3	33.4	95.33	17 17	16.93	9	43.7	97.13	6 37	14.64	15	56.7	99.41	11 27	17.53	5	8.4	1.49	16 40	16.13	11	18.9	3.34	6 27
18.17	3	33.5	95.35	15 31	16.85	9	43.9	97.16	18 32	17.30	6	56.7	99.41	6 26	16.18	12	8.6	1.52	17 50	17.35	8	19.0	3.35	14 27
15.88	12	33.6	95.36	16 46	17.62	4	44.2	97.21	5 35	18.58	3	56.7	99.42	9 59	18.30	3	8.7	1.54	17 34	17.37	9	19.1	3.37	14 31
18.86	3	33.8	95.38	9 29	17.72	4	44.9	97.34	7 28	17.12	10	56.7	99.42	7 38	19.17	1	9.7	1.71	8 42	17.86	4	19.1	3.37	17 10
16.54	11	34.3	95.48	10 10	18.86	3	45.1	97.39	15 28	16.55	10	56.8	99.43	7 30	16.73	11	10.1	1.79	8 55	17.92	4	19.1	3.37	18 41
14.76	14	34.6	95.52	5 54	18.46	3	45.6	97.46	15 58	18.61	3	57.5	99.56	7 52	16.71	9	10.6	1.87	18 38	18.07	4	19.3	3.40	13 20
14.70	15	35.3	95.65	9 36	17.74	3	45.6	97.46	5 07	17.37	5	57.8	99.59	9 53	16.97	9	10.7	1.88	19 38	16.62	11	19.4	3.42	11 15
15.43	13	35.4	95.67	5 02	18.62	3	45.7	97.49	10 33	17.31	9	57.8	99.61	17 06	16.20	11	10.8	1.91	9 57	11.86	16	19.5	3.43	13 00
17.46	6	35.6	95.70	14 56	17.06	10	45.8	97.50	5 58	16.23	12	58.2	99.68	11 17	18.15	4	11.0	1.94	16 53	16.81	11	19.5	3.44	16 09
15.61	12	35.7	95.72	11 09	18.35	3	45.9	97.52	8 03	15.35	13	58.2	99.69	14 10	17.21	9	11.4	2.00	17 32	18.20	3	19.7	3.47	16 27
17.55	4	35.7	95.72	5 26	18.67	3	45.9	97.52	16 36	14.48	14	58.8	99.79	15 14	17.49	5	11.6	2.05	8 09	18.22	4	20.1	3.55	11 04
17.19	8	35.8	95.74	7 28	15.63	12	46.4	97.62	17 08	18.50	2	58.9	99.80	11 18	15.75	12	11.9	2.08	14 39	14.80	16	20.3	3.58	5 09
18.84	1	35.9	95.76	14 31	14.47	15	46.6	97.65	19 17	16.18	11	59.3	99.89	12 08	8.77w	6	11.9	2.10	10 34	18.95	1	20.4	3.60	6 37
16.59	10	36.0	95.77	8 01	17.20*	1	46.7	97.67	17 54	16.22	10	59.3	99.89	18 39	15.97	11	12.0	2.12	12 23	18.35	3	20.5	3.60	16 14
16.62	11	36.2	95.81	10 35	18.02	1	46.7	97.67	17 55	10.42w	8	59.6	99.93	6 45	19.07	3	12.1	2.13	9 03	18.35	2	20.6	3.64	10 14
18.68	3	36.8	95.93	18 33	18.12	3	46.9	97.70	11 49	16.81	10	60.4	0.07	18 01	16.77	10	12.1	2.14	5 02	18.86	3	20.8	3.67	10 29
17.67	2	37.0	95.96	17 54	18.56	3	47.3	97.77	16 19	16.89	11	60.6	0.10	11 35	17.99	4	12.1	2.14	16 44	17.91	4	20.8	3.67	11 47
17.99	2	37.0	95.97	17 56	18.39	3	47.6	97.82	8 12	15.96	12	60.7	0.13	16 42	17.18	7	12.3	2.16	7 42	16.29	12	20.9	3.69	14 27
14.59	15	37.1	95.97	14 18	17.24	6	47.7	97.83	18 54	17.90	5	60.8	0.14	12 41	15.34	13	12.7	2.23	17 29	17.45	9	21.1	3.72	10 49
13.38	17	37.4	96.01	7 34	18.74	1	48.0	97.88	11 18	17.29	7	60.8	0.15	10 15	18.62	3	12.7	2.23	13 57	18.92	3	21.2	3.73	12 57
15.25	13	37.7	96.06	6 17	17.97	4	48.5	97.97	8 30	16.95	10	61.0	0.19	18 50	14.17	13	13.1	2.31	10 12	18.02	4	21.7	3.81	14 21
17.76	4	37.7	96.08	14 22	16.38	9	49.0	98.06	17 06	17.66	6	61.2	0.22	7 40	18.74	3	13.3	2.34	11 39	16.21	11	21.8	3.85	7 31
17.90	3	37.7	96.09	12 36	12.64	17	49.0	98.06	9 19	17.78	4	61.3	0.24	11 17	17.29	9	13.3	2.35	13 20	17.76	4	22.3	3.92	10 08
15.63	12	38.0	96.11	8 58	16.69	10	49.1	98.08	6 10	13.92	14	62.1	0.36	16 18	15.91	12	13.7	2.40	15 30	15.88	12	22.9	4.03	18 56
18.36	3	38.2	96.16	13 40	18.51	3	49.3	98.12	7 42	17.15	9	62.3	0.40	11 36	16.70	10	13.8	2.43	7 11	17.92	4	23.0	4.04	15 20
17.57	4	38.2	96.16	12 06	17.41	7	49.6	98.17	8 37	16.61	11	62.3	0.41	10 09	18.11	4	14.1	2.49	17 07	17.14	7	23.2	4.08	10 17
17.43	5	38.7	96.24	7 13	14.37	14	49.6	98.17	12 53	16.58	11	62.4	0.43	12 21	18.41	3	14.1	2.49	15 11	18.90	3	23.7	4.16	14 49
17.14	10	38.9	96.29	7 43	16.63	10	49.7	98.18	18 03	18.03	4	62.5	0.45	12 29	17.86	4	14.2	2.50	19 00	17.18	8	23.9	4.22	5 58
17.57	4	39.0	96.30	7 14	16.68	10	49.7	98.19	16 40	18.32	4	62.6	0.46	12 51	18.16	4	14.4	2.53	18 36	17.13	8	24.1	4.25	8 57
15.93	12	39.1	96.32	8 14	17.31	9	50.1	98.27	11 17	14.45	15	62.6	0.47	14 37	15.69	13	14.4	2.55	9 50	18.00	4	24.1	4.25	14 44
17.61	4	39.4	96.36	11 31	17.79	4	50.2	98.28	14 31	16.86	10	62.6	0.47	8 30	17.94	4	14.6	2.56	12 36	17.00	10	24.2	4.26	12 54
15.34	13	39.4	96.37	13 43	18.67	3	50.3	98.30	15 43	17.61	4	62.7	0.48	18 00	18.38	3	14.6	2.56	10 53	16.87	10	24.3	4.26	15 05
18.14	2	39.4	96.37	12 30	14.85	15	50.7	98.36	10 44	15.26	14	62.7	0.49	14 50	17.97	4	14.9	2.62	8 07	18.80	3	24.5	4.30	16 12
18.43	1	39.6	96.40	12 27	16.91	10	50.7	98.37	11 15	17.30	6	62.8	0.50	6 09	19.07	3	15.2	2.68	8 13	18.02d	1	24.6	4.34	6 12
17.52	7	40.3	96.53	11 55	17.67	4	51.3	98.46	17 29	17.39	7	62.9	0.52	15 56	16.11	11	15.4	2.71	11 10	18.40	4	24.7	4.36	7 06
17.51	6	41.3	96.70	7 20	14.89	14	51.4	98.49	18 40	18.55	3	63.1	0.55	16 26	17.47	6	15.5	2.72	8 04	16.14	11	25.0	4.42	7 40

25 prec. + $98^s.1$, + 6′ 27″

301—330				
Mag.		α 38^{m}	x	$y+10'$
		s	′	′ ″
18.34	4	25.3	4.45	15 10
17.54	6	25.3	4.45	13 09
13.29	17	25.4	4.47	13 36
17.44	8	25.4	4.48	8 26
12.31	16	25.4	4.49	9 08
18.61	3	25.6	4.50	13 50
17.66	5	26.1	4.60	11 38
18.32	4	26.6	4.68	10 50
18.70	3	26.5	4.68	7 01
17.20	10	27.4	4.83	13 22
18.35	3	27.7	4.88	10 11
15.76	12	28.0	4.92	18 13
17.03	10	28.1	4.93	18 38
18.44	3	28.1	4.94	16 47
18.59	3	28.3	4.99	7 45
14.54	15	28.4	5.00	12 32
18.05	4	28.6	5.03	16 09
16.90	11	28.8	5.06	12 47
17.09	8	29.3	5.16	10 40
16.19	12	29.5	5.18	17 59
19.11	3	29.6	5.21	12 26
16.91	10	30.0	5.28	6 40
17.99	4	30.4	5.34	15 10
17.76	4	30.4	5.34	19 42
17.88	4	30.3	5.34	11 37
17.92	4	30.4	5.35	12 13
17.31	8	30.5	5.36	10 25
17.22	9	30.5	5.37	13 21
17.40	8	30.8	5.44	6 29
16.19	12	31.3	5.50	19 36

331—360				
Mag.		α 38^{m}	x	$y+10'$
		s	′	′ ″
18.71	3	31.3	5.52	5 49
18.56	3	31.4	5.54	14 04
18.86	3	31.5	5.55	9 42
17.33	6	31.7	5.56	17 30
18.24	3	31.7	5.56	17 18
18.95	3	31.6	5.57	6 29
15.76	12	31.8	5.58	19 08
18.23	3	31.9	5.62	14 22
17.08	8	32.1	5.66	7 26
18.60	3	32.6	5.74	11 56
16.83	10	32.8	5.78	14 06
17.82	4	32.8	5.79	13 31
18.92	3	32.9	5.80	7 51
17.01	10	33.0	5.80	17 23
17.34	7	33.3	5.86	12 27
17.30	8	33.7	5.93	18 49
15.15	14	34.0	5.99	15 31
14.32	15	34.5	6.08	11 38
16.04	11	34.7	6.10	17 58
18.53	3	34.7	6.12	9 01
18.38	3	34.8	6.13	5 49
17.95	4	35.1	6.16	19 39
17.42	8	35.0	6.17	8 56
16.54	10	35.0	6.17	14 16
17.24	7	35.3	6.20	17 10
18.13	4	35.3	6.22	11 24
14.66	15	36.0	6.34	14 09
17.72	4	35.9	6.34	7 49
14.06	15	36.2	6.39	6 16
17.56	7	36.4	6.40	11 59

361—390				
Mag.		α 38^{m}	x	$y+10'$
		s	′	′ ″
17.42	7	36.4	6.41	12 11
16.05	12	36.6	6.44	13 51
18.65	3	36.8	6.48	6 03
12.40	16	36.8	6.49	14 44
18.08	4	36.9	6.50	6 49
15.36	13	37.0	6.52	14 52
18.72	3	37.1	6.54	12 41
17.73	4	37.2	6.54	18 36
17.37	7	37.6	6.62	11 29
17.15	7	38.2	6.71	18 56
17.94	4	38.4	6.75	16 05
17.55	4	38.4	6.76	5 52
17.56	6	38.4	6.76	9 31
17.71	4	38.5	6.77	15 27
17.15	8	39.0	6.86	12 25
16.24	11	39.0	6.87	13 57
17.85	3	39.2	6.89	19 19
17.08	10	39.2	6.90	13 35
18.50	3	39.4	6.93	12 06
17.41	6	39.4	6.93	15 51
16.67	10	39.5	6.95	17 09
17.15	10	39.5	6.96	5 12
17.46	4	40.0	7.03	19 29
17.15	10	39.9	7.03	8 51
17.05	10	40.1	7.07	5 53
17.59	4	40.4	7.10	16 26
16.75	11	40.3	7.11	8 44
17.85	4	40.7	7.15	19 09
17.25	9	40.6	7.16	9 54
17.81d	1	41.0	7.20	17 29

391—420				
Mag.		α 38^{m}	x	$y+10'$
		s	′	′ ″
15.17	14	40.9	7.21	9 14
17.24	6	40.9	7.21	6 16
17.37	7	41.4	7.28	13 01
18.30	3	42.2	7.43	12 07
17.84	4	42.6	7.52	6 14
14.98	14	43.3	7.62	18 14
14.66	15	43.6	7.68	8 03
17.16	10	43.6	7.68	5 32
18.21w	2	44	7.7	10 18
13.96	14	44.3	7.80	10 43
18.37	3	44.3	7.80	12 11
15.46	12	44.5	7.84	11 50
17.75	4	44.7	7.87	12 10
15.36	10	45.3	7.98	11 04
17.69	4	45.6	8.02	16 40
17.67	4	45.8	8.06	10 03
18.84	1	45.8	8.08	8 38
17.29w	7	46	8.1	8 12
16.31	11	46.0	8.11	6 08
18.00	4	46.4	8.19	13 36
16.90	10	46.7	8.21	18 46
16.33	12	46.9	8.26	9 00
16.71	9	46.9	8.26	14 03
18.07*	2	47	8.3	14 54
16.04	9	47.2	8.31	14 05
16.32	11	47.4	8.34	18 15
16.66	10	48.2	8.46	19 48
15.34	13	48.0	8.47	9 08
16.44	11	48.1	8.49	5 24
16.97	10	48.3	8.51	13 25

421—449				
Mag.		α 38^{m}	x	$y+10'$
		s	′	′ ″
18.02	4	48.5	8.54	11 19
16.94	10	48.5	8.54	14 02
16.76	10	48.8	8.58	19 42
17.61	4	48.7	8.59	8 29
15.96	12	48.8	8.60	7 56
18.34	3	48.8	8.61	12 20
13.45	17	49.0	8.64	13 43
17.11	10	49.4	8.68	18 11
17.04	10	50.0	8.78	19 16
17.04	10	50.1	8.80	18 56
17.32	8	50.4	8.87	13 47
18.59	3	50.8	8.93	16 17
16.58	11	51.4	9.03	18 32
18.31	3	51.5	9.06	14 50
16.57	11	51.5	9.07	12 08
14.07	14	51.6	9.09	14 09
16.95	8	51.6	9.10	6 00
17.49	4	51.9	9.15	9 25
15.67	12	52.1	9.16	11 08
16.29	11	52.5	9.24	13 51
18.55	3	52.7	9.26	17 00
17.36	7	52.8	9.30	11 26
17.54	5	53.2	9.37	11 25
15.79	12	53.1	9.37	7 15
18.09	4	53.3	9.37	18 25
15.60	12	53.5	9.43	5 21
18.11	4	53.7	9.45	10 00
18.70	3	53.8	9.45	15 09
18.12	4	54.3	9.58	9 44

25 prec. $+ 98^{s}.2$, $+ 6' 26''$

2^{h} Area 22. Supplementary Stars $+ 45°$

1s—20s				
Mag.		α 37^{m}	x	$y+10'$
		s	′	′
17.50	3	7	90.8	9.9
15.73	10	9	91.0	8.6
15.57	10	9	91.1	12.2
18.43	2	10	91.2	9.2
18.03	3	11	91.3	9.6
17.15	5	12	91.6	7.8
14.43	12	13	91.6	9.0
17.03	6	13	91.6	14.2
15.00	12	13	91.7	6.3
17.16	5	14	91.8	7.1
12.90	14	13	91.8	8.7
16.44	9	14	91.9	15.2
14.54	14	15	92.0	9.7
13.73	11	14	92.0	10.2
17.76	3	16	92.2	5.0
17.56	3	16	92.2	14.5
18.46	2	16	92.3	15.0
18.81	2	17	92.4	4.5
18.71	2	17	92.4	4.8
13.20	15	17	92.4	14.4

21s—40s				
Mag.		α 37^{m}	x	$y+10'$
		s	′	′
17.61	3	17	92.4	16.2
17.97	2	17	92.5	13.4
18.63	2	18	92.6	6.0
17.65	3	18	92.6	6.3
13.75	13	18	92.6	6.8
17.85	3	18	92.6	7.7
18.73	2	19	92.7	5.6
18.49	2	19	92.7	16.6
16.48	9	19	92.8	13.0
18.69	2	19	92.8	13.8
17.16	4	19	92.8	13.9
17.85	3	19	92.8	17.2
14.66	13	20	92.9	5.5
18.56	2	20	92.9	9.3
17.79	3	20	92.9	11.9
18.25	2	20	92.9	14.8
18.65	2	20	93.0	4.6
13.13	13	20	93.0	16.7
15.54	10	21	93.1	4.9
16.93	9	21	93.1	13.1

41s—60s				
Mag.		α 37^{m}	x	$y+10'$
		s	′	′
18.67	2	21	93.1	16.4
13.78	11	21	93.2	11.7
14.59	12	21	93.2	12.0
15.98	10	21	93.2	12.5
17.62	3	21	93.2	17.8
16.62	8	22	93.3	7.0
12.59	13	22	93.3	10.2
18.04	3	22	93.4	17.3
15.61	10	23	93.5	15.7
17.08	9	24	93.6	9.4
18.79	2	24	93.6	9.6
16.72	9	24	93.7	7.5
17.24	4	24	93.7	10.5
17.54	3	24	93.7	11.2
15.92	9	24	93.7	14.8
17.87	3	25	93.8	12.6
17.21	4	25	93.8	13.0
18.57	2	25	93.9	2.4
15.61	10	25	93.9	13.7
17.50	3	26	94.0	5.7

61s—80s				
Mag.		α 37^{m}	x	$y+10'$
		s	′	′
18.49	2	26	94.0	8.0
15.51	9	26	94.0	12.8
16.45	9	26	94.0	14.2
18.63	2	27	94.1	2.3
18.31	2	27	94.1	4.0
17.77	3	27	94.1	6.7
17.06	2	26	94.1	18.0
17.77	2	27	94.2	4.5
18.51	2	27	94.2	5.0
18.31	2	27	94.2	8.3
17.97	2	27	94.2	9.0
15.95	9	27	94.2	12.6
17.31	5	27	94.2	17.4
14.09	13	27	94.2	18.6
18.19	3	28	94.4	10.5
18.59	2	29	94.6	15.6
18.45	2	30	94.7	5.0
17.71	3	32	95.0	3.2
15.03	13	33	95.2	2.2
17.63	3	34	95.4	3.9

81s—100s				
Mag.		α 37^{m}	x	$y+10'$
		s	′	′
17.57	3	35	95.5	2.0
17.92	2	35	95.6	2.4
17.93	2	36	95.8	1.8
18.75	2	36	95.8	4.0
18.11	2	37	95.9	1.2
16.62	7	37	96.0	2.3
18.67	2	37	96.0	2.4
18.47	2	38	96.0	4.0
18.42	2	38	96.1	2.0
18.75	2	38	96.2	4.7
18.63	2	39	96.3	2.6
18.45	2	41	96.6	4.0
17.01	9	42	96.9	3.5
17.55	3	42	96.9	20.4
17.10	5	43	97.0	0.8
16.49	9	43	97.0	3.4
18.71	2	43	97.0	3.6
17.68	3	43	97.0	4.7
17.61	3	43	97.0	20.8
16.70	9	44	97.2	1.6

25 prec. $+ 98^{s}.1$, $+ 6' 27''$

2^{h}

Area 22. Supplementary Stars

+ 44°, + 45°

101*s*—160*s*

Mag.		α 37^{m}	x	$\frac{y+70'}{y+10'}$
		s	′	′
18.19	2	44	97.2	2.5
16.99	9	44	97.2	3.4
17.65	3	44	97.2	4.1
17.74	3	44	97.2	4.9
17.33	5	45	97.3	1.4
16.95	9	45	97.3	20.8
18.97	2	46	97.5	4.9
15.55	11	47	97.6	0.8
17.73	2	47	97.6	1.6
17.40	3	46	97.6	1.8
18.58	2	46	97.6	2.0
14.33	13	47	97.6	3.6
18.05	2	47	97.7	4.4
18.73	2	48	97.8	1.0
18.79	2	48	97.8	3.4
17.29	7	48	97.9	4.5
16.70	9	49	98.0	0.2
17.11	8	49	98.1	4.0
15.77	10	50	98.2	4.1
18.45	2	50	98.3	1.2
16.88	9	50	98.3	1.9
14.17	12	51	98.4	0.5
17.63	3	52	98.5	0.6
18.51	2	52	98.6	3.9
17.75	3	52	98.6	20.2
16.70	9	53	98.7	59.8
17.09	9	53	98.7	0.7
18.33	2	53	98.8	2.2
18.00	3	53	98.8	20.6
16.09	10	54	98.9	21.3
15.06	12	55	99.0	0.2
18.73	2	55	99.0	2.6
18.23	2	54	99.0	4.0
18.61	2	54	99.0	4.1
18.78	2	56	99.2	1.4
17.58	3	56	99.2	2.2
17.15	7	56	99.3	0.3
18.17	2	56	99.3	1.9
18.10	2	57	99.4	0.7
18.51	2	57	99.4	4.9
18.63	2	58	99.6	0.6
18.31	2	58	99.6	20.4
14.29	12	59	99.8	0.5
17.80	2	60	0.0	2.6
17.60	3	60	0.0	4.4
18.61	2	60	0.0	20.1
18.18	3	61	0.1	1.2
18.83	2	61	0.1	1.6
18.63	2	61	0.1	2.6
17.83	3	61	0.1	4.2
17.92	3	61	0.2	0.1
16.91	9	61	0.2	0.2
15.22	12	61	0.2	3.8
18.67	2	61	0.2	20.0
18.50	2	61	0.2	21.0
18.77	2	61	0.2	21.2
17.15	6	61	0.2	21.8
16.12	8	62	0.3	59.4
18.81	2	62	0.3	3.0
17.04	6	62	0.4	20.4

161*s*—220*s*

Mag.		α 38^{m}	x	$\frac{y+70'}{y+10'}$
		s	′	′
18.65	2	3	0.6	2.6
18.02	3	3	0.6	21.5
13.09	15	4	0.7	59.8
16.25	10	4	0.7	2.4
15.74	10	4	0.7	3.6
16.51	8	5	0.8	59.4
13.25	15	5	0.8	1.7
18.73	2	5	0.9	0.4
18.78	2	5	0.9	21.5
15.36	12	6	1.0	59.4
17.00	9	6	1.0	0.8
15.41	11	6	1.0	2.0
18.81	2	7	1.2	4.7
15.39	11	7	1.3	20.2
16.71	7	7	1.3	21.9
17.02	5	8	1.4	59.2
14.89	13	8	1.4	59.6
17.31	4	8	1.4	2.4
17.69	3	8	1.4	3.0
17.99	2	8	1.4	4.0
18.75	2	9	1.6	0.0
16.15	9	9	1.6	4.0
18.87	2	10	1.7	3.4
18.27	2	10	1.8	59.2
16.63	9	10	1.8	59.6
18.16	2	10	1.8	1.4
16.12	10	10	1.8	20.1
17.37	2	12	2.2	1.1
16.41	9	12	2.2	4.2
16.87	9	12	2.2	4.4
17.74	3	13	2.2	20.3
18.43	2	12	2.2	20.4
17.43	3	13	2.2	21.9
17.74	3	13	2.4	3.8
17.52	3	13	2.4	22.0
16.04	10	14	2.6	2.2
16.04	10	15	2.6	2.5
17.29	8	15	2.6	3.2
17.45	3	15	2.6	22.0
14.95	12	15	2.7	0.5
18.91	2	15	2.7	4.5
16.39	9	16	2.8	3.1
17.74	3	16	2.9	59.6
17.65	3	17	3.0	2.6
18.67	2	18	3.1	2.7
17.72	3	18	3.1	21.2
13.54	14	18	3.2	3.4
18.08	2	18	3.2	4.7
15.81	10	19	3.3	1.0
14.09	13	19	3.4	59.8
18.45	2	19	3.4	20.1
17.25	5	19	3.4	20.8
16.42	9	20	3.6	59.9
17.78	2	20	3.6	3.6
18.59	2	22	3.8	1.4
16.54	9	22	3.8	21.6
17.16	7	22	3.9	2.5
14.36	13	22	3.9	3.6
16.02	9	22	3.9	20.3
18.45	2	23	4.0	59.8

221*s*—280*s*

Mag.		α 38^{m}	x	$y+10'$
		s	′	′
17.01	9	22	4.0	1.2
16.68	9	23	4.0	21.6
17.89	3	23	4.1	2.8
18.35	2	23	4.1	3.5
17.82	3	24	4.2	1.6
16.96	9	24	4.2	4.6
18.85	2	24	4.2	4.7
18.31	2	25	4.4	2.0
14.95	12	27	4.7	3.0
18.23	2	28	4.9	0.3
17.67	3	28	4.9	0.5
17.95	3	28	4.9	3.4
18.69	2	28	5.0	1.5
16.23	7	28	5.0	1.9
17.87	3	29	5.2	1.1
15.24	11	31	5.4	3.2
18.68	2	31	5.5	0.8
16.93	9	31	5.5	20.4
18.61	2	32	5.6	0.8
17.61	3	32	5.7	3.9
18.59	2	33	5.8	3.3
17.19	7	33	5.8	20.2
18.45	2	34	6.0	2.8
18.16	2	34	6.0	4.4
15.99	10	35	6.2	1.2
16.32	9	35	6.2	3.2
16.18	9	35	6.2	20.2
18.69	2	37	6.5	3.4
17.60	3	40	7.0	1.2
18.49	2	40	7.0	1.9
16.64	9	40	7.0	3.7
18.73	2	40	7.1	1.5
17.13	6	40	7.1	2.3
11.72	8	40	7.2	0.8
17.66	3	41	7.2	2.7
16.91	6	42	7.5	0.8
17.77	2	44	7.8	4.3
18.77	2	46	8.2	4.0
17.26	5	48	8.5	2.6
17.45	5	49	8.7	4.9
18.05	3	50	8.8	2.0
15.92	10	50	8.8	3.3
18.21	2	52	9.1	1.9
16.36	9	52	9.1	2.2
16.32	8	52	9.1	2.9
17.54	5	52	9.2	4.8
16.59	9	53	9.3	3.1
16.14	10	53	9.3	4.2
18.13	3	54	9.5	3.9
17.59	4	54	9.6	3.2
13.86	13	55	9.7	14.5
17.36	3	55	9.7	15.7
18.53	2	56	9.8	11.3
17.37	3	56	9.8	14.2
17.77	2	56	9.8	15.9
15.19	12	56	9.9	16.9
17.72	4	57	10.0	7.8
18.73	2	57	10.0	8.3
18.81	2	57	10.0	9.4
17.34	5	57	10.0	15.8

281*s*—340*s*

Mag.		α 38^{m}	x	$y+10'$
		s	′	′
17.33	5	57	10.0	17.4
18.61	2	57	10.0	18.0
15.23	11	57	10.1	6.0
18.72	2	57	10.1	17.6
14.66	14	58	10.2	5.5
17.93	3	58	10.2	7.9
15.64	10	58	10.2	8.3
18.67	2	58	10.2	9.4
18.78	2	58	10.2	16.2
18.21	2	58	10.3	4.1
17.48	3	58	10.3	4.2
18.71	2	58	10.3	6.3
16.48	9	59	10.4	17.3
18.49	2	60	10.5	12.9
16.45	9	60	10.5	15.7
17.73	3	60	10.6	5.2
16.83	9	60	10.6	6.2
18.59	2	60	10.6	8.6
18.75	2	60	10.6	12.7
16.45	9	61	10.7	6.3
18.61	2	61	10.7	9.0
18.59	2	61	10.8	5.2
17.89	2	61	10.8	6.7
17.69	3	62	10.8	9.2
17.80	2	62	10.9	10.6
15.53	10	62	10.9	12.9
18.53	2	62	10.9	15.9
18.46	2	62	11.0	4.4
16.82	8	62	11.0	6.0
15.91	10	62	11.0	10.8
14.93	12	62	11.0	13.8
17.75	3	63	11.1	4.3
18.35	2	63	11.1	5.8
15.73	10	63	11.1	8.7
18.23	2	63	11.1	9.3
18.80	2	63	11.1	9.5
18.54	2	63	11.1	17.2
15.27	11	63	11.2	6.5
16.47	9	64	11.2	14.3
18.83	2	64	11.2	16.2
15.83	10	65	11.4	17.1
17.90	2	65	11.5	11.0
15.93	10	66	11.6	5.9
17.10	8	66	11.7	9.1
13.72	13	66	11.7	16.0
16.05	10	67	11.8	11.1
16.66	9	67	11.8	11.4
17.80	3	67	11.8	12.7
16.24	9	67	11.8	14.4
17.78	3	68	11.9	8.0
15.15	12	68	11.9	8.7
18.08	3	68	11.9	9.7
18.32	2	68	11.9	14.7
18.35	2	68	12.0	8.4
18.10	3	68	12.0	11.8
17.21	7	68	12.0	12.0
16.57	9	69	12.2	5.9
17.33	5	69	12.2	6.2
15.89	10	69	12.2	9.0
15.77	10	70	12.3	5.6

341*s*—353*s*

Mag.		α 39^{m}	x	$y+10'$
		s	′	′
17.38	5	10	12.3	9.8
16.63	9	10	12.3	13.6
18.77	2	10	12.4	9.9
18.16	3	12	12.6	14.8
14.07	12	12	12.7	9.4
16.93	9	12	12.7	12.3
12.98	14	13	12.8	14.4
16.97	7	14	13.0	8.9
18.40	2	14	13.0	10.1
18.39	2	14	13.0	12.9
17.18	7	14	13.1	11.1
16.33	9	15	13.2	10.3
16.37	9	15	13.2	11.9

25 prec. + $98^{s}.2$, + 6′ 26″

Area 23. Center for 1900: 3h 39m + 45° 0′ (15′ × 15′)

1—60

Mag.		α 37m	x	y+60′ / y
		s	′	′ ″
18.51	3	52.6	88.07	58 21
16.77	6	52.6	88.10	1 22
16.89	6	52.7	88.12	1 21
15.24	11	53.2	88.19	56 18
17.92	3	53.3	88.22	1 22
16.73	8	53.3	88.22	4 48
16.01	8	53.2	88.22	5 08
13.06	18	53.5	88.24	55 13
16.40	8	53.4	88.24	2 06
18.29	3	54.0	88.35	0 01
15.44	11	54.1	88.36	3 23
16.92	8	54.1	88.36	4 21
17.66	3	54.4	88.38	57 11
18.28	3	54.6	88.47	9 44
16.69	9	54.9	88.50	2 51
18.22	3	55.1	88.51	56 24
16.10	9	55.1	88.54	0 20
17.18	6	55.4	88.58	1 08
16.68	8	55.6	88.64	5 30
17.98	3	55.7	88.67	8 49
16.86	8	56.1	88.68	55 21
16.83	8	56.4	88.74	57 32
17.78	3	56.5	88.76	59 27
17.12	6	56.5	88.76	58 47
17.17	6	56.6	88.78	56 11
15.63	10	56.8	88.81	57 29
16.96	6	57.2	88.89	56 58
17.92	3	57.5	88.94	55 31
17.75	3	57.5	88.95	59 56
15.72	10	57.8	89.00	55 45
16.73	6	57.7	89.01	8 26
17.26	6	57.9	89.04	4 08
16.88	6	58.0	89.05	4 22
14.47	14	58.4	89.11	1 28
12.36	16	58.7	89.16	0 02
15.75	10	58.7	89.17	1 41
18.51	2	58.6	89.17	5 29
17.11	6	58.7	89.19	6 23
14.22	16	59.1	89.22	55 40
17.47	3	59.0	89.25	5 34
15.85	10	59.1	89.26	5 44
18.45	3	59.3	89.26	59 27
17.23	6	59.5	89.32	4 00
14.91	13	59.7	89.36	9 10
15.92	10	59.9	89.37	59 01
16.59	8	59.8	89.38	9 16
17.27	6	60.1	89.41	4 53
16.21	9	60.2	89.43	1 19
17.62	3	60.1	89.43	8 03
17.13	6	60.2	89.45	9 02
17.28	6	60.3	89.46	6 56
13.69	15	60.6	89.48	56 26
18.60	2	60.8	89.54	3 09
17.53	3	61.1	89.60	3 37
17.08	6	61.3	89.65	8 38
18.21	2	61.9	89.73	2 42
15.01	11	62.3	89.78	57 53
17.03	6	62.3	89.78	56 20
17.15	6	62.4	89.83	4 44
18.49	2	63.0	89.94	0 33

61—120

Mag.		α 38m	x	y+60′ / y
		s	′	′ ″
16.66	8	3.2	89.98	7 38
16.67	8	3.3	90.00	6 50
16.89	5	4.5	90.19	59 41
17.10	6	4.8	90.23	56 34
15.50	11	5.0	90.27	56 13
17.36	6	4.9	90.27	1 31
18.18	3	5.6	90.41	7 25
18.55	3	6.0	90.49	7 45
18.45	3	6.2	90.49	57 37
18.48	2	6.2	90.50	3 19
18.63	2	6.3	90.52	3 32
11.32	12	6.7	90.57	58 51
14.05	14	7.1	90.64	59 53
17.97	3	7.0	90.64	0 29
18.49	3	7.0	90.65	7 41
18.06	3	7.0	90.65	6 25
16.67	8	7.1	90.66	6 47
17.17	6	7.5	90.75	5 15
18.07	3	7.9	90.77	57 32
17.43	6	8.2	90.85	1 08
17.00	8	8.5	90.89	58 07
14.02	16	9.0	90.98	3 53
17.40	5	9.1	91.00	4 20
18.34	2	9.1	91.00	1 30
16.65	8	9.2	91.02	1 38
17.71:	1	9.4	91.05	59 40
13.61	17	9.4	91.06	4 34
15.84	10	10.0	91.16	1 57
17.50	3	10.2	91.21	9 06
18.60	2	10.4	91.24	3 02
17.70	3	10.4	91.25	7 14
17.42	6	10.6	91.27	0 24
18.64	2	10.7	91.28	2 36
17.93	3	10.8	91.30	3 16
17.18	8	10.9	91.32	4 31
16.59	8	11.2	91.37	56 55
16.91	8	11.2	91.37	57 14
17.93	3	11.6	91.44	56 10
17.38	6	11.8	91.49	3 25
18.14	3	11.9	91.52	7 50
16.72	8	12.2	91.56	9 28
17.56	3	12.4	91.58	58 50
16.48	9	12.5	91.61	3 59
17.57	2	12.9	91.68	4 18
17.68	3	12.9	91.68	1 05
16.71	8	12.9	91.69	3 24
17.81	3	13.0	91.69	55 22
18.23	3	13.2	91.74	0 08
16.89	8	13.3	91.74	57 45
18.58	3	13.3	91.76	8 21
17.66	3	13.3	91.76	9 09
17.30	6	13.4	91.78	8 41
17.41	4	14.3	91.95	6 17
18.14	3	14.7	92.01	7 44
18.48	1	15.1	92.07	3 59
18.34	3	15.3	92.09	57 00
17.46	6	15.4	92.11	2 32
16.90	7	15.5	92.14	1 31
16.97	6	15.6	92.15	56 38
17.44	4	15.8	92.18	55 00

121—180

Mag.		α 38m	x	y+60′ / y
		s	′	′ ″
15.40	7	16.0	92.22	59 47
17.28	6	16.0	92.25	9 22
16.85	8	16.8	92.36	0 40
14.65	11	17.2	92.44	0 56
16.19	9	17.5	92.49	58 28
18.78	2	17.5	92.51	6 17
18.70	2	17.6	92.52	4 22
16.88	8	17.7	92.52	57 05
15.98	10	17.7	92.54	5 02
16.96	8	17.9	92.55	57 25
15.38	9	18.0	92.56	57 45
18.08	2	18.0	92.58	2 46
16.97	8	17.9	92.59	9 32
14.23	16	18.3	92.62	56 51
18.56	2	18.6	92.67	57 11
16.59	9	18.5	92.67	1 37
16.92	8	18.6	92.68	4 30
18.23	2	18.7	92.71	0 50
18.12	3	19.0	92.74	56 04
18.51	3	19.4	92.84	9 56
16.45	8	19.7	92.86	56 30
18.30	3	19.8	92.92	7 41
18.68	2	20.2	92.95	59 56
17.97	3	20.5	93.02	59 34
16.33	9	20.7	93.06	8 40
17.55	3	20.8	93.08	5 31
16.97	8	20.9	93.10	6 54
17.86	2	21.1	93.12	56 48
17.22	6	21.0	93.12	5 46
17.10	8	21.0	93.13	6 27
16.97	4	21.2	93.13	56 21
18.05	2	21.4	93.18	1 51
16.12	9	22.0	93.29	55 34
17.48	4	22.2	93.33	2 09
18.47	2	22.5	93.38	8 40
18.58	2	22.7	93.40	59 18
18.71	2	22.8	93.44	5 27
18.19	2	22.9	93.46	5 54
17.68	3	23.2	93.49	55 39
16.32	9	23.2	93.51	6 22
17.87	3	23.6	93.58	6 52
16.23	9	23.6	93.58	5 51
18.08	2	23.7	93.60	7 11
18.39	2	23.9	93.64	6 35
17.99	3	24.3	93.70	9 16
17.27	6	24.4	93.71	4 10
18.55	2	24.5	93.73	4 17
17.32	6	24.9	93.81	9 04
16.30	9	25.8	93.96	5 42
17.35	6	26.0	94.00	8 19
18.25	2	26.2	94.01	59 03
17.26	7	26.1	94.01	1 35
18.30	3	26.3	94.06	5 27
18.25	2	26.3	94.07	5 34
17.43	5	26.8	94.13	58 31
18.27	2	27.0	94.18	5 51
16.45	9	27.0	94.18	7 57
17.41	6	27.2	94.21	5 47
17.51	5	27.2	94.21	4 05
18.60	2	27.5	94.26	5 01

181—240

Mag.		α 38m	x	y+60′ / y
		s	′	′ ″
17.94	3	27.5	94.27	1 53
17.86	3	27.6	94.28	1 06
16.26	8	27.9	94.31	56 08
16.78	8	27.9	94.33	1 40
16.85	6	28.1	94.37	0 03
17.34	6	28.2	94.37	59 07
16.69	8	28.2	94.39	3 07
18.17	2	28.5	94.42	59 02
17.01	6	28.6	94.45	55 04
15.09	12	28.5	94.45	9 49
19.16	2	28.9	94.51	2 23
18.10	2	29.0	94.52	0 45
18.16	3	29.0	94.53	8 41
17.29	7	29.1	94.54	3 30
18.67	2	29.2	94.56	4 49
16.41	9	29.2	94.56	7 36
18.63	2	29.7	94.65	4 43
16.50	9	30.3	94.75	3 35
17.37	6	31.0	94.89	4 14
18.54	2	31.6	94.98	55 20
16.50	9	31.8	95.01	1 55
16.18	9	31.9	95.03	59 36
17.46	6	32.1	95.08	6 04
17.67	3	32.4	95.12	0 06
17.51	6	32.7	95.16	59 55
17.26	6	32.8	95.19	57 24
14.20	16	33.1	95.25	8 23
18.27	2	33.2	95.26	7 50
18.71	2	33.2	95.26	6 11
18.71	2	33.3	95.28	58 36
17.88	3	33.5	95.32	3 16
14.78	12	33.6	95.34	56 56
17.21	8	33.7	95.37	7 32
17.47	6	34.1	95.42	4 25
18.37	2	34.3	95.46	6 57
16.73	8	34.5	95.48	56 59
16.89	8	34.6	95.50	55 35
18.45	2	34.7	95.54	3 52
16.80	8	34.8	95.55	55 09
17.51	6	34.8	95.55	5 21
15.47	10	34.9	95.56	8 17
8.83w	4	34.9	95.56	2 21
18.29	3	35.2	95.61	0 13
17.28	6	35.2	95.61	1 02
18.22	3	35.2	95.62	8 13
16.48	9	35.3	95.64	59 00
16.85	8	35.6	95.69	55 05
18.53	3	35.7	95.71	9 44
18.54	2	36.2	95.78	59 56
17.48	3	36.5	95.84	55 15
18.57	2	36.7	95.89	1 12
14.17	16	37.1	95.96	5 39
17.39	5	37.2	95.96	4 20
16.46	8	37.2	95.97	57 29
18.20	3	37.2	95.97	0 58
16.53	8	37.3	95.98	58 55
17.38	6	37.5	96.03	7 15
18.28	2	37.5	96.03	1 04
18.14	2	37.6	96.04	1 44
18.51	2	37.8	96.08	2 56

241—300

Mag.		α 38m	x	y+60′ / y
		s	′	′ ″
18.20	2	38.0	96.12	7 08
18.38	2	38.1	96.13	4 34
18.55	2	38.3	96.16	5 02
14.83	11	38.6	96.21	58 11
17.41	6	38.7	96.24	2 55
18.38	2	38.8	96.27	9 18
17.19	6	38.9	96.28	6 26
17.43	3	39.2	96.31	59 01
18.49	3	39.6	96.38	55 03
18.92	2	39.7	96.41	4 07
16.19:	8	40.1	96.49	6 20
15.85	9	40.4	96.54	55 01
17.17	6	40.4	96.55	5 04
18.05	3	40.4	96.55	6 36
16.77	8	40.5	96.57	6 41
18.74	2	40.6	96.57	3 18
18.49	2	40.7	96.58	2 17
12.93	18	40.7	96.60	9 18
15.82	9	41.0	96.65	6 42
17.78	3	41.1	96.67	1 02
19.04	2	41.4	96.71	3 15
18.36	2	41.7	96.76	59 00
16.80	8	41.8	96.79	8 21
17.97	3	42.0	96.82	1 25
17.17	6	42.2	96.85	3 59
17.96	3	42.1	96.85	7 46
17.17	6	42.2	96.86	9 35
17.45	6	42.4	96.88	59 36
16.31	8	42.5	96.90	0 02
17.21	6	42.5	96.91	7 20
18.03	2	42.8	96.97	3 06
16.79	8	42.9	96.99	57 54
17.30	6	43.1	97.02	7 41
16.47	8	43.5	97.09	56 11
17.09	6	43.5	97.09	8 02
18.55	2	43.6	97.10	7 26
19.04	2	44.0	97.17	3 06
15.90	10	43.9	97.17	7 38
17.20	6	44.6	97.29	9 43
18.10	2	44.7	97.30	2 21
14.23	16	45.0	97.35	57 11
17.18	6	45.1	97.37	7 58
17.99	3	45.3	97.40	59 15
18.20	3	45.7	97.49	0 49
17.23	6	45.9	97.50	56 20
18.54	2	46.0	97.52	55 04
18.62	2	46.1	97.55	57 32
17.15:	8	46.3	97.59	1 37
17.25	6	46.7	97.65	57 09
17.01	7	46.8	97.66	0 30
11.07w	10	47.2	97.74	6 39
16.25	9	47.2	97.75	9 48
17.15	8	47.3	97.76	1 21
16.54	8	48.6	97.98	0 11
16.86	8	48.9	98.03	55 03
18.16	3	49.1	98.08	6 54
17.02	6	49.2	98.10	7 20
16.20	9	49.3	98.12	8 23
17.05	6	49.4	98.13	3 51
18.15	2	49.5	98.15	1 32

25 prec. + $103^{\mathrm{s}}.9$, + 4′ 51″

301—330

Mag.		α 38^m	x	$y+60'$ / y
		s	′	′ ″
18.67	2	49.8	98.20	6 51
17.08	8	49.9	98.22	57 52
17.91	3	50.1	98.25	6 31
18.15	2	50.2	98.26	1 42
17.32	6	50.3	98.28	59 16
18.67	2	50.6	98.34	2 21
17.70	3	50.8	98.39	3 47
18.54	2	51.1	98.42	56 54
17.39	3	51.3	98.46	56 00
18.41	2	51.7	98.53	1 32
17.46	4	51.7	98.54	56 47
17.57	3	51.8	98.55	9 01
18.67	2	52.0	98.59	2 21
17.65	3	52.0	98.59	9 22
15.04	12	52.3	98.65	8 11
17.88	3	52.4	98.67	7 15
18.30	2	52.5	98.68	3 16
18.45	2	52.9	98.74	57 19
17.99	2	52.9	98.75	56 32
18.71	2	53.0	98.77	0 11
18.20	3	53.0	98.77	1 20
17.97	3	53.0	98.77	8 08
17.99	3	53.1	98.79	8 04
18.07	2	53.1	98.79	3 48
18.09	3	53.3	98.82	0 48
18.08	2	53.4	98.84	3 05
16.09	9	53.8	98.90	8 08
18.55	2	54.1	98.97	5 30
18.22	3	54.1	98.97	10 00
17.61	3	54.5	99.04	3 41

331—360

Mag.		α 38^m	x	$y+60'$ / y
		s	′	′ ″
17.96	2	54.5	99.04	2 48
17.57	3	54.6	99.05	55 57
17.47	6	54.7	99.06	1 32
18.12	2	54.9	99.10	5 42
18.08	2	55.0	99.12	0 36
16.86	8	55.0	99.12	59 38
18.17	2	55.1	99.14	7 58
17.63	3	55.4	99.19	8 30
18.60	2	55.6	99.23	7 49
16.57	9	56.2	99.33	8 48
18.45	3	56.2	99.34	56 41
17.24	6	56.5	99.38	5 16
17.27	6	57.1	99.48	6 51
17.61	1	57.1	99.48	55 56
18.71	2	57.2	99.50	0 12
17.40	6	57.5	99.56	0 06
16.42	9	57.5	99.56	57 55
18.73	2	58.0	99.65	1 33
16.73	8	58.1	99.66	55 14
17.32	6	58.1	99.67	1 27
17.11	6	58.2	99.68	8 33
17.90	3	58.3	99.70	57 30
18.45	3	58.5	99.74	9 21
16.38	7	58.6	99.75	3 58
9.99w	8	58.8	99.79	55 51
15.92	9	59.1	99.84	59 21
17.82	2	59.1	99.85	7 27
18.48	2	59.2	99.86	6 26
17.21	6	59.2	99.86	2 31
18.53	2	59.3	99.89	0 47

361—390

Mag.		α 38^m	x	$y+60'$ / y
		s	′	′ ″
18.40	3	59.4	99.90	8 02
18.60	2	59.8	99.97	7 36
18.45	2	60.8	0.14	3 31
17.92	2	61.0	0.18	4 32
16.34	6	61.0	0.18	1 49
17.88	3	61.2	0.22	5 36
17.04	6	61.3	0.24	7 42
18.08	3	61.4	0.25	57 39
18.14	2	61.9	0.33	5 06
14.83	13	62.0	0.35	4 57
18.08	2	62.1	0.37	58 31
18.48	2	62.7	0.48	4 08
15.49	10	62.8	0.50	58 20
16.78	8	62.9	0.51	5 29
15.33	11	62.9	0.52	0 44
17.87:	3	63.2	0.56	56 34
16.30	9	63.3	0.59	56 18
14.67	13	63.6	0.64	3 10
17.98	3	63.7	0.65	59 12
17.06	6	63.9	0.68	5 10
18.51	3	64.2	0.75	57 01
18.37	2	64.3	0.76	59 11
17.75	3	64.3	0.76	9 35
16.96	8	64.5	0.80	56 50
18.65	2	64.6	0.81	3 52
16.89	8	64.7	0.84	3 08
18.20	3	64.8	0.85	8 38
17.08	6	64.9	0.87	8 08
17.76	3	64.9	0.87	59 50
14.22	16	65.1	0.90	9 53

391—420

Mag.		α 39^m	x	$y+60'$ / y
		s	′	′ ″
16.35	9	5.5	0.96	6 28
17.18	6	5.7	1.01	5 10
16.02	9	6.0	1.06	8 49
18.12	3	6.1	1.08	5 51
17.87	3	6.1	1.08	55 19
14.59	14	6.6	1.17	6 39
18.16	3	6.7	1.18	58 09
16.81	8	7.1	1.26	55 40
18.54	2	7.2	1.27	2 14
16.94	6	7.3	1.28	8 53
18.49	3	7.5	1.33	9 34
17.10	6	7.7	1.36	58 20
17.67	3	7.9	1.40	1 45
17.89	3	8.2	1.45	56 10
18.04	3	8.9	1.57	2 09
17.59	3	8.9	1.58	56 32
18.27	3	9.7	1.72	6 35
15.27	11	9.9	1.75	57 21
16.09	9	10.3	1.81	4 51
16.96	6	10.4	1.85	55 52
15.73	10	10.6	1.87	6 52
15.92	9	11.1	1.96	9 04
16.51	9	11.1	1.97	5 49
18.00	3	11.1	1.97	57 13
17.73	3	11.3	2.00	4 11
15.25	12	11.5	2.03	9 16
15.43	10	11.7	2.06	6 08
18.57	2	11.7	2.07	58 26
17.44	4	11.8	2.09	1 11
17.70	3	11.8	2.09	8 25

421—445

Mag.		α 39^m	x	$y+60'$ / y
		s	′	′ ″
18.31	2	12.1	2.13	4 10
18.51	3	12.3	2.17	6 20
15.56	10	12.6	2.24	58 54
17.63	3	13.0	2.30	6 38
18.11	2	13.4	2.36	3 11
16.10	9	13.5	2.38	8 27
16.45	9	13.8	2.44	5 09
15.48	10	14.0	2.46	6 26
16.50	8	14.0	2.46	8 00
18.28	3	14.1	2.49	2 17
17.58	3	14.9	2.63	8 56
16.81	8	14.9	2.63	7 06
16.74	8	14.9	2.65	55 05
18.28	3	15.4	2.71	9 55
17.00	6	15.6	2.76	0 42
18.51	2	15.7	2.77	5 42
16.14	9	15.7	2.79	55 49
17.10	4	16.0	2.84	56 30
17.28	6	16.0	2.84	1 08
13.85	15	16.2	2.87	56 17
16.84	8	16.2	2.87	6 11
18.41	2	16.3	2.89	9 53
15.16	13	16.8	2.96	4 57
18.47	3	16.8	2.97	57 59
18.26	3	16.9	2.99	55 01

25 prec. + 104ˢ.0, + 4′ 49″

3^h

Area 23. Supplementary Stars

+ 44°, + 45°

1s—20s

Mag.		α 37^m	x	$y+60'$ / y
		s	′	′
17.89	2	30	84.1	3.2
16.99	5	31	84.3	3.2
18.34	2	33	84.6	1.1
18.14	2	33	84.6	2.0
18.03	2	33	84.6	3.3
18.10	2	34	84.8	59.9
18.25	2	34	84.9	4.3
18.18	2	34	84.9	4.6
16.58	7	35	85.0	58.4
17.66	2	35	85.0	2.0
17.76	2	36	85.1	0.1
18.20	2	36	85.1	2.1
18.16	2	36	85.1	3.0
18.34	2	36	85.1	5.1
16.65	7	36	85.2	59.2
17.03	5	36	85.2	0.4
16.90	5	36	85.2	6.5
18.23	2	36	85.2	6.9
17.86	2	37	85.3	0.2
16.56	7	37	85.4	58.9

21s—40s

Mag.		α 37^m	x	$y+60'$ / y
		s	′	′
18.18	2	37	85.4	59.8
18.20	2	37	85.4	5.8
18.20	2	38	85.5	57.8
16.89	5	38	85.5	57.9
17.25	2	38	85.5	6.5
16.56	7	39	85.6	58.0
13.25	15	39	85.6	59.0
18.16	2	39	85.6	0.6
16.97	5	38	85.6	2.4
17.68	2	39	85.7	57.4
16.94	5	39	85.7	58.7
18.38	2	40	85.8	0.4
17.42	2	40	85.8	0.8
17.83	2	40	85.8	6.4
17.52	2	40	85.9	58.7
17.70	2	40	85.9	1.7
18.12	2	40	85.9	2.4
14.80:	9	40	85.9	3.0
18.25	2	40	85.9	8.0
18.34	2	41	86.0	58.5

41s—60s

Mag.		α 37^m	x	$y+60'$ / y
		s	′	′
16.76	5	41	86.0	2.0
18.30	2	41	86.0	2.6
18.36	2	41	86.0	2.9
18.27	2	41	86.0	6.2
18.32	2	41	86.0	7.6
15.66	8	41	86.1	56.0
17.50	2	41	86.1	56.6
18.36	2	41	86.1	59.0
18.44	2	41	86.1	3.3
17.58	2	42	86.2	4.9
18.12	2	42	86.3	6.6
16.83	5	43	86.4	55.8
17.94	2	43	86.4	56.3
17.88	2	43	86.4	57.4
16.77	7	43	86.4	58.9
18.40	2	43	86.4	0.0
17.03	5	43	86.4	6.9
18.23	2	44	86.5	56.5
17.76	2	44	86.5	56.9
18.20	2	44	86.5	57.3

61s—80s

Mag.		α 37^m	x	$y+60'$ / y
		s	′	′
18.08	2	44	86.5	58.7
18.40	2	44	86.5	59.4
17.28	3	44	86.5	1.6
18.42	2	44	86.6	6.2
18.12	2	44	86.6	7.3
18.25	2	44	86.6	8.9
18.08	2	45	86.7	5.5
17.29	2	45	86.7	6.8
18.32	2	45	86.8	57.1
18.32	2	45	86.8	59.1
16.50	7	45	86.8	0.6
16.16	7	45	86.8	4.7
18.26	2	46	86.9	58.1
11.80	11	46	86.9	59.0
16.67	7	46	86.9	59.5
18.30	2	46	86.9	3.5
16.77	7	46	86.9	4.4
18.42	2	46	86.9	5.6
17.52	2	46	86.9	8.6
18.32	2	47	87.0	55.8

81s—100s

Mag.		α 37^m	x	$y+60'$ / y
		s	′	′
18.27	2	46	87.0	59.5
18.47	2	46	87.0	4.5
16.44	7	46	87.0	9.3
18.14	2	47	87.1	55.4
16.19	7	47	87.1	58.6
18.45	2	47	87.1	59.1
17.17	2	47	87.1	59.8
18.47	2	47	87.1	1.0
18.25	2	47	87.1	10.2
18.18	2	47	87.2	6.0
18.32	2	47	87.2	8.4
18.25	2	47	87.2	10.0
16.62	7	48	87.3	55.1
17.92	2	48	87.3	56.9
17.72	2	48	87.3	57.3
18.54	2	48	87.3	2.7
17.04	5	48	87.3	6.5
17.77	2	48	87.3	8.1
18.54	2	49	87.4	1.0
15.90	8	49	87.4	3.7

25 prec. + 103ˢ.9, + 4′ 51″

101s—160s					161s—220s					221s—280s					281s—340s					341s—400s				
Mag.		α 37^{m}	x	$y+60'$ y	Mag.		α 38^{m}	x	$y+60'$ y	Mag.		α 38^{m}	x	$y+60'$ y	Mag.		α 38^{m}	x	$y+60'$ y	Mag.		α 39^{m}	x	$y+60'$ y
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
18.03	2	49	87.5	56.1	16.97	5	13	91.7	54.0	13.90	14	32	95.0	13.5	18.42	2	47	97.7	10.1	17.48	2	13	2.3	11.3
17.62	2	49	87.5	58.9	17.01	5	13	91.7	10.6	17.17	3	32	95.1	51.5	18.25	2	47	97.7	10.5	16.84	5	13	2.4	10.8
17.14	5	49	87.5	5.8	18.42	2	13	91.7	11.4	17.17	5	32	95.1	53.9	16.14	7	48	97.8	11.8	18.16	2	15	2.7	54.2
18.22	2	49	87.5	6.8	18.32	2	14	91.8	52.4	18.01	2	32	95.1	54.4	18.32	2	48	97.8	12.7	16.95	5	16	2.8	53.5
18.49	2	50	87.6	57.8	18.05	2	14	91.8	11.0	16.97	5	32	95.1	11.5	16.99	5	48	97.9	51.4	18.49	2	17	3.0	7.8
18.12	2	51	87.7	54.5	18.20	2	14	91.9	54.6	16.85	5	33	95.2	51.3	17.33	2	48	97.9	52.0	17.14	5	18	3.1	58.6
17.48	2	50	87.7	57.5	17.88	2	14	91.9	12.3	17.76	2	33	95.2	52.4	18.20	2	48	97.9	52.3	16.04	7	18	3.1	4.8
18.47	2	50	87.7	7.2	17.54	2	15	92.0	52.4	17.83	2	33	95.2	12.7	17.42	2	49	98.0	53.0	18.12	2	18	3.2	55.0
17.84	2	51	87.8	0.3	18.34	2	15	92.1	54.1	17.17	3	33	95.2	13.2	16.81	7	49	98.0	54.2	18.25	2	18	3.2	55.4
18.01	2	51	87.8	0.4	16.91	5	16	92.2	11.5	18.25	2	33	95.3	52.1	15.47	8	49	98.1	53.3	17.86	2	18	3.2	55.5
18.40	2	51	87.8	0.7	18.28	2	16	92.2	11.8	18.10	2	33	95.3	53.7	17.05	5	49	98.1	11.4	18.40	2	18	3.2	56.9
18.40	2	52	87.9	56.0	17.54	2	16	92.2	12.0	18.47	2	34	95.4	53.9	16.80	7	49	98.1	11.6	18.01	2	18	3.2	57.9
14.29	14	51	87.9	3.0	16.85	7	16	92.3	10.3	16.13	7	34	95.4	54.7	16.24	7	49	98.1	11.9	17.12	5	18	3.2	2.2
16.68	7	51	87.9	6.4	16.96	5	18	92.5	51.6	18.32	2	34	95.4	12.5	18.28	2	50	98.2	11.6	16.56	5	19	3.3	54.8
18.38	2	52	88.0	59.3	17.71	2	19	92.7	12.3	18.42	2	35	95.5	54.9	15.19	10	50	98.3	53.0	18.27	2	19	3.3	0.9
18.32	2	52	88.0	9.1	17.79	2	19	92.7	12.7	17.24	3	35	95.6	52.6	16.72	7	51	98.4	11.4	18.56	2	19	3.4	59.8
16.62	7	52	88.0	10.2	17.33	2	19	92.8	10.1	13.50	15	35	95.6	10.7	18.08	2	52	98.5	54.6	18.34	2	20	3.5	55.3
18.12	2	53	88.2	53.7	17.21	3	20	93.0	52.9	13.26	14	36	95.7	10.3	16.70	7	52	98.5	11.0	16.71	7	20	3.5	56.1
18.25	2	53	88.2	54.0	17.52	2	21	93.1	52.8	17.31	2	36	95.7	13.3	18.34	2	52	98.6	53.1	18.47	2	20	3.5	58.0
18.32	2	53	88.2	10.3	18.49	2	21	93.1	53.3	15.76	7	36	95.8	51.0	17.06	5	52	98.6	54.4	15.16	11	20	3.5	2.6
18.25	2	54	88.3	54.0	18.25	2	21	93.1	53.6	17.44	2	36	95.8	52.5	18.40	2	52	98.6	12.0	18.45	2	20	3.6	58.1
17.92	2	54	88.4	10.4	18.45	2	21	93.1	10.2	18.30	2	36	95.8	11.2	14.67	12	53	98.7	51.9	17.17	5	20	3.6	0.3
14.46	11	56	88.7	11.4	17.00	5	22	93.2	52.8	16.58	7	36	95.8	12.0	17.52	2	53	98.8	52.3	15.61	8	21	3.6	5.0
16.97	5	56	88.8	11.0	17.35	2	22	93.2	53.2	14.89	11	37	95.9	52.0	16.90	5	53	98.8	10.4	18.38	2	20	3.6	6.7
16.70	7	57	88.9	10.6	18.32	2	23	93.4	10.3	17.03	5	37	95.9	12.2	16.94	5	54	98.9	52.8	16.77	7	21	3.7	58.7
17.55	2	58	89.1	54.6	17.60	2	23	93.4	12.3	17.76	2	37	95.9	13.1	15.48	9	54	98.9	53.6	14.98	11	21	3.7	4.0
18.08	2	59	89.3	10.9	16.25	7	23	93.5	10.1	18.21	2	37	96.0	51.0	15.49	8	54	98.9	54.1	16.16	7	22	3.9	55.2
18.12	2	60	89.4	11.6	15.81	7	23	93.5	13.2	18.49	2	37	96.0	54.0	17.78	2	54	99.0	52.6	15.64	8	22	3.9	56.4
18.08	2	61	89.6	54.8	17.87	2	24	93.6	10.3	17.54	2	37	96.0	54.4	17.88	2	54	99.0	53.4	16.67	7	22	3.9	3.9
15.68	8	61	89.6	11.0	16.63	7	24	93.6	11.4	18.30	2	38	96.1	11.0	16.61	7	54	99.0	54.3	17.82	2	22	3.9	5.6
17.76	2	61	89.6	11.1	18.28	2	24	93.7	12.8	17.04	5	38	96.2	12.2	18.49	2	55	99.1	53.8	18.32	2	23	4.0	57.4
17.61	2	64	90.0	54.1	16.42	7	25	93.8	52.6	16.82	5	39	96.3	53.7	16.68	7	56	99.3	51.9	18.47	2	23	4.0	3.4
18.42	2	64	90.0	54.3	18.49	2	25	93.8	10.2	14.33	14	39	96.4	52.8	18.16	2	56	99.3	54.3	16.56	7	23	4.1	3.0
17.57	2	64	90.0	54.8	16.98	5	25	93.8	12.3	16.98	3	40	96.4	53.2	18.27	2	57	99.4	10.2	16.91	7	24	4.2	0.2
18.10	2	63	90.0	10.1	16.11	7	26	93.9	53.8	14.47	12	40	96.4	53.6	18.40	2	57	99.4	11.3	17.61	2	24	4.2	5.1
18.27	2	64	90.1	12.0	18.06	2	26	94.0	51.4	17.46	2	40	96.4	10.2	16.99	5	57	99.5	54.1	16.74	5	24	4.3	56.5
18.40	2	65	90.3	54.1	18.20	2	26	94.0	13.1	17.74	2	39	96.4	13.4	18.30	2	58	99.6	52.4	17.33	2	24	4.3	0.4
18.40	2	66	90.4	10.2	18.18	2	27	94.1	52.0	18.40	2	40	96.5	52.8	16.97	5	58	99.6	54.7	18.34	2	24	4.3	8.5
15.01	11	66	90.5	10.1	17.11	5	27	94.1	54.2	17.72	2	40	96.5	53.2	15.76	8	59	99.9	12.0	18.20	2	25	4.4	55.8
17.06	5	68	90.8	52.4	17.76	2	27	94.1	10.5	18.03	2	41	96.6	13.1	18.34	2	59	99.9	12.3	13.57	15	25	4.4	56.7
18.49	2	68	90.8	55.0	17.62	2	27	94.1	12.3	18.25	2	41	96.7	13.7	18.01	2	60	0.0	52.5	15.54	7	25	4.4	0.9
18.40	2	68	90.8	10.4	17.59	2	27	94.2	53.2	18.16	2	42	96.8	13.0	18.25	2	60	0.0	11.8	18.30	2	25	4.4	1.6
17.73	2	69	90.9	53.0	16.71	7	27	94.2	12.0	17.76	2	43	96.9	52.4	17.54	2	61	0.1	11.9	16.76	7	25	4.4	5.6
18.32	2	69	90.9	53.4	17.08	3	28	94.3	52.7	18.08	2	42	96.9	54.3	16.72	7	62	0.3	53.1	17.15	5	25	4.5	2.4
16 93	5	68	90.9	10.3	18.08	2	28	94.3	12.8	16.70	6	42	96.9	54.4	18.28	2	62	0.4	52.4	18.49	2	25	4.5	3.6
18.42	2	68	90.9	11.1	16.58	7	29	94.5	52.4	14.76	9	42	96.9	10.1	14.10	12	63	0.5	10.2	17.68	2	26	4.6	55.6
18.34	2	68	90.9	11.3	18.42	2	29	94.5	11.9	17.90	2	42	96.9	12.0	14.93	11	63	0.6	54.2	18.42	2	26	4.6	58.9
18.30	2	69	91.0	12.0	16.16	7	29	94.6	53.0	16.32	7	42	96.9	12.7	15.27	10	64	0.7	54.1	17.34	3	26	4.6	1.6
18.26:	2	70	91.2	53.8	18.47	2	29	94.6	54.0	13.20	16	44	97.1	51.9	17.96	2	65	0.9	52.8	18.36	2	26	4.6	3.7
17.98	2	71	91.3	53.4	18.08	2	30	94.7	51.6	18.34	2	44	97.1	54.0	13.22	14	65	0.9	10.1	15.65	8	26	4.6	4.7
15.47	8	71	91.4	52.9	16.70	7	31	94.8	51.7	16.80	7	44	97.1	11.9	16.91	5	66	1.1	53.0	16.09	7	26	4.6	7.1
14.83	11	71	91.4	10.3	18.24	2	31	94.8	10.8	16.74	7	44	97.1	12.6	16.87	5	67	1.2	53.7	16.18	7	27	4.7	0.9
18.32	2	73	91.6	53.3	18.25	2	30	94.8	13.0	18.27	2	44	97.2	13.4	18.40	2	67	1.3	10.7	18.49	2	27	4.7	1.0
17.16	5	72	91.6	10.9	18.25	2	31	94.9	52.1	14.49	12	46	97.5	53.9	17.92	2	68	1.4	10.3	15.97	7	27	4.7	1.4
16.74	7	72	91.6	11.2	18.49	2	31	94.9	54.3	18.25	2	46	97.5	11.4	13.70	15	69	1.6	54.2	18.42	2	27	4.8	59.6
18.40	2	72	91.6	11.3	17.10	5	31	94.9	11.2	17.66	2	46	97.6	10.6	17.04	5	69	1.6	54.9	18.32:	2	27	4.8	2.4
17.84	2	72	91.6	11.5	18.42	2	32	95.0	52.9	16.84	5	46	97.6	11.0	16.03	7	70	1.7	54.9	18.47	2	27	4.8	3.8
17.52	2	73	91.7	51.6	18.45	2	32	95.0	53.8	17.04	5	46	97.6	11.5	16.57	7	70	1.7	11.6	16.86	5	27	4.8	8.0
15.42	8	73	91.7	52.6	17.70	2	32	95.0	54.6	18.40	2	46	97.6	11.6	18.42	2	71	2.0	55.0	15.84	7	28	4.9	56.4
18.40	2	73	91.7	53.2	17.76	2	32	95.0	12.4	18.03	2	46	97.6	12.4	16.31	7	72	2.2	53.8	11.95	14	28	4.9	0.8

25 prec. + $103^{\mathrm{s}}.9$, + 4′ 51″

$3^{\rm h}$ Area 23. Supplementary Stars + 44°, + 45°

401s—410s

Mag.		α $39^{\rm m}$	x	y+60′ / y
		s	′	′
17.88	2	28	4.9	4.8
17.80	2	28	4.9	6.3
18.27	2	28	4.9	6.7
18.08	2	28	5.0	57.0
18.08	2	28	5.0	0.1
18.40	2	29	5.2	59.6
17.76	2	29	5.2	2.6
17.02:	5	29	5.2	5.1
14.42	12	29	5.2	6.6
17.48	2	30	5.3	56.7

411s—420s

Mag.		α $39^{\rm m}$	x	y+60′ / y
		s	′	′
17.80	2	30	5.3	58.3
17.20	3	30	5.3	2.2
18.23	2	30	5.3	2.4
17.05	5	30	5.3	5.2
16.38	7	31	5.4	0.5
17.33	2	31	5.5	1.8
18.40	2	31	5.5	2.1
16.71	7	31	5.5	6.0
16.85	5	32	5.6	57.3
18.27	2	32	5.6	57.4

421s—430s

Mag.		α $39^{\rm m}$	x	y+60′ / y
		s	′	′
17.50	2	32	5.6	59.6
17.96	2	31	5.6	6.2
18.34	2	32	5.7	0.8
17.41	2	33	5.8	59.3
16.50	7	33	5.8	0.5
11.94	13	35	6.2	0.9
18.23	2	36	6.4	0.7
15.89	7	37	6.6	2.2
17.39	2	38	6.6	3.0
18.23	2	38	6.8	2.5

431s

Mag.		α $39^{\rm m}$	x	y
		s	′	′
12.68	14	39	6.8	3.0

25 prec. + 104$^{\rm s}$.0, + 4′ 49″

$4^{\rm h}$ Area 24. Center for 1900: $4^{\rm h}$ $39^{\rm m}$ + 44° 50′ (15′ × 15′) + 44°

1—40

Mag.		α $37^{\rm m}$	x	y+50′
		s	′	′ ″
18.06	3	56.2	88.71	57 56
18.12	2	56.4	88.72	48 54
18.16	3	56.4	88.73	49 15
16.39	7	56.5	88.75	51 23
17.47	2	56.6	88.76	49 21
18.50	3	56.6	88.79	55 13
17.17	3	56.8	88.81	58 53
18.21	3	57.2	88.86	48 20
18.36	1	57.4	88.90	45 50
17.91	3	57.6	88.94	52 37
18.42	1	57.6	88.97	55 54
17.87	3	58.1	89.02	50 36
18.48	1	58.1	89.03	51 00
17.68	2	58.1	89.04	46 00
15.92	9	58.2	89.06	55 12
18.15	3	58.3	89.06	46 19
16.24	8	58.3	89.07	48 48
17.18	5	58.8	89.15	49 38
17.00	7	59.3	89.23	50 02
15.73	9	59.5	89.29	46 47
18.25	3	59.7	89.31	53 07
17.76	3	59.7	89.34	58 49
18.51	3	60.5	89.46	59 06
18.45	3	60.8	89.51	51 31
18.18	3	61.0	89.55	48 19
17.00	7	61.1	89.56	52 13
17.27	7	61.0	89.57	58 15
18.30	3	61.2	89.59	47 40
12.34	16	61.4	89.62	48 40
17.65	3	62.1	89.74	49 01
18.35	2	62.7	89.85	51 24
15.51	10	62.9	89.89	45 48
12.60	8	63.1	89.92	51 03
18.48	1	63.2	89.95	56 59
16.95	7	64.3	90.13	48 02
17.01	7	64.4	90.15	54 32
18.17	3	64.5	90.16	45 20
13.06	17	64.6	90.19	51 28
17.27	5	65.0	90.26	56 58
17.53	5	65.7	90.36	50 57

41—80

Mag.		α $38^{\rm m}$	x	y+50′
		s	′	′ ″
17.16	7	6.7	90.57	57 07
14.49	12	6.8	90.59	59 02
18.46	3	7.4	90.69	55 06
18.00	3	7.4	90.69	58 50
18.42	1	8.0	90.78	47 09
17.20	5	8.1	90.80	49 07
18.43	3	8.3	90.83	54 10
15.23	11	8.3	90.85	59 51
18.54	1	8.6	90.89	53 01
15.88	9	8.8	90.95	55 35
17.28	6	9.3	91.01	46 29
14.20	14	9.3	91.04	55 47
17.23	7	9.5	91.06	57 29
17.23	5	10.0	91.14	47 21
18.06	3	10.0	91.15	59 47
18.75	2	10.1	91.17	59 00
16.59	7	10.3	91.18	48 36
17.77	3	10.5	91.23	50 43
17.93	3	11.1	91.34	54 24
16.96	7	11.0	91.34	58 27
18.41	2	11.6	91.43	57 50
16.18	7	11.7	91.43	49 06
18.09	3	11.9	91.48	55 26
17.68	3	12.0	91.50	58 56
18.42	1	12.7	91.62	47 28
16.71	7	12.8	91.64	48 40
16.21	8	13.0	91.66	45 43
17.18	7	12.9	91.67	58 05
16.59	8	13.1	91.68	45 46
18.48	3	13.0	91.68	58 32
17.69	3	13.0	91.69	57 02
16.37	8	13.3	91.71	47 34
18.36	3	13.6	91.77	46 01
18.31	3	13.6	91.77	45 39
17.37	7	13.8	91.81	50 46
18.49	3	14.5	91.93	50 09
17.32	7	14.7	91.99	57 08
18.40	3	15.4	92.10	49 46
18.48	1	15.5	92.12	58 22
15.48	8	15.8	92.16	45 58

81—120

Mag.		α $38^{\rm m}$	x	y+50′
		s	′	′ ″
16.26	8	15.9	92.18	50 55
11.79	14	15.9	92.19	50 27
18.57	3	16.1	92.21	52 38
17.38	7	16.4	92.27	51 27
17.19	7	16.4	92.27	45 33
17.16	5	16.6	92.31	59 46
16.58	8	16.8	92.35	53 16
18.06	3	17.0	92.36	45 04
17.31	7	17.1	92.41	56 09
17.23	7	17.5	92.49	58 00
18.41	3	18.1	92.59	59 39
18.47	3	18.3	92.61	56 34
17.27	5	18.4	92.61	45 09
14.65	13	18.4	92.61	47 41
18.22	3	18.6	92.66	52 57
18.43	2	18.7	92.69	47 03
17.18	5	18.9	92.71	54 50
18.32	3	19.0	92.72	45 40
18.38	3	19.0	92.73	54 42
18.14	3	19.0	92.75	59 49
15.79	10	19.2	92.79	59 22
17.43	7	19.5	92.82	51 55
18.08	2	19.7	92.85	45 57
18.25	3	19.7	92.86	55 07
17.37	7	19.8	92.87	50 17
18.28	3	20.0	92.90	47 10
15.86	9	20.9	93.07	48 45
14.12	13	21.1	93.10	51 12
15.39	12	21.8	93.23	51 39
17.36	5	21.8	93.23	51 42
16.68	8	21.8	93.23	52 07
18.50	2	22.4	93.33	53 04
18.05	3	22.7	93.38	52 41
16.58	8	22.6	93.39	57 36
18.30	3	23.0	93.45	50 50
16.19	8	23.1	93.45	49 30
15.94	9	23.3	93.48	49 37
17.09	7	23.6	93.55	52 56
18.41	3	23.7	93.57	50 20
16.38	8	23.8	93.59	53 14

121—160

Mag.		α $38^{\rm m}$	x	y+50′
		s	′	′ ″
18.05	3	24.3	93.66	54 20
15.02	13	24.2	93.66	56 30
15.45	11	24.3	93.67	50 30
16.38	8	24.3	93.69	57 22
17.82	3	24.6	93.71	45 22
15.82	8	24.9	93.76	45 57
18.22	1	24.8	93.76	59 44
18.48	1	24.9	93.78	56 12
18.47	3	24.9	93.78	59 56
18.39	2	25.2	93.84	55 02
15.07	11	25.4	93.87	45 19
18.60	1	26.0	93.96	51 41
18.41	3	26.1	93.98	49 10
17.20w	6	26	94.0	53 30
17.01	7	26.4	94.04	54 12
18.54	1	26.8	94.11	48 59
17.00	7	27.1	94.17	49 56
18.57	2	27.1	94.18	55 48
17.40	5	27.4	94.24	59 37
17.31	7	27.5	94.24	52 28
18.60	1	27.8	94.30	56 31
18.25	3	28.0	94.34	59 07
18.11	3	28.3	94.36	46 00
17.33	7	28.2	94.36	50 08
17.01	7	28.6	94.43	47 14
18.59	2	28.6	94.44	55 15
18.52	2	29.2	94.54	52 41
17.13	7	29.4	94.56	48 03
16.56	7	29.4	94.58	52 03
18.65	1	29.4	94.58	55 59
17.25	7	29.5	94.60	57 44
17.99	3	29.7	94.64	58 24
16.17	7	29.8	94.64	46 10
18.76	2	29.9	94.66	53 35
15.96	9	30.4	94.75	45 12
18.62	3	30.4	94.76	56 54
15.88	9	30.8	94.83	50 25
18.01	3	31.0	94.85	45 03
17.35	3	31.6	94.96	45 24
16.77	8	31.7	94.99	54 56

161—200

Mag.		α $38^{\rm m}$	x	y+50′
		s	′	′ ″
15.64	10	32.1	95.07	55 12
18.42	1	32.4	95.10	45 25
18.49	3	32.7	95.16	52 51
18.39	3	32.8	95.18	50 26
18.27	2	32.9	95.20	54 34
17.04	6	32.9	95.20	50 17
13.14	17	33.1	95.23	54 02
17.61	3	33.1	95.25	57 47
16.53	7	33.3	95.26	46 25
15.59	9	33.4	95.28	47 15
18.49	2	33.3	95.28	57 50
16.61	8	33.6	95.31	49 03
18.62	3	33.6	95.32	48 48
16.08	8	34.2	95.41	48 19
17.95	3	34.2	95.42	54 42
18.67	3	34.5	95.47	49 40
17.65	6	34.5	95.48	52 58
18.55	3	34.5	95.49	59 44
16.29	8	35.2	95.60	50 35
16.53	8	35.5	95.66	56 37
18.00	3	35.6	95.69	56 29
18.38	3	35.8	95.71	57 08
14.61	14	35.9	95.73	52 25
18.45	2	36.2	95.79	52 28
18.43	2	36.3	95.79	49 15
17.32	5	36.4	95.81	45 35
16.27*	2	36.6	95.86	58 54
15.70	10	36.6	95.87	59 09
17.20	1	36.7	95.88	58 52
17.41	7	36.9	95.90	51 37
17.39	5	37.0	95.92	46 50
15.67	9	37.0	95.92	49 27
18.48	1	37.1	95.93	46 41
15.92	8	37.4	95.98	45 47
11.93	15	37.4	96.00	55 04
15.90	10	38.1	96.12	59 29
10.28w	8	38.4	96.16	54 29
16.92	7	38.6	96.20	48 56
18.50	2	38.6	96.21	55 49
17.33	5	38.6	96.22	60 00

25 prec. + 107$^{\rm s}$.8, + 2′ 55″

201—260				
Mag.		α 38^m	x	y+50′
		s	′	′ ″
18.03	3	38.7	96.22	51 18
18.33	3	39.2	96.31	52 27
17.28	7	39.3	96.33	50 11
16.10	9	39.4	96.33	46 28
18.43	3	39.6	96.38	50 53
17.48	5	39.8	96.41	50 11
17.78	3	39.9	96.43	51 22
18.44	3	40.1	96.47	54 44
17.38	7	40.6	96.56	55 55
15.32	12	40.8	96.60	58 34
18.70	1	40.8	96.60	54 15
17.35	7	41.1	96.65	51 03
17.34	7	41.2	96.66	52 02
17.00	7	41.4	96.70	46 44
18.39	2	41.6	96.74	57 08
15.77	9	41.8	96.76	48 53
18.05	3	41.8	96.77	49 58
17.10	5	42.1	96.82	49 52
18.70	1	42.0	96.82	55 14
15.28	12	42.4	96.86	48 51
18.06	3	42.5	96.88	46 40
17.32	7	42.5	96.90	47 20
17.92	3	42.5	96.90	56 58
17.15	7	42.8	96.94	47 06
17.06	7	42.8	96.95	50 50
17.42	5	42.9	96.96	48 00
18.65	1	43.4	97.05	53 39
17.16	7	43.4	97.06	55 30
17.55	7	43.6	97.08	51 39
18.38	2	43.8	97.11	48 47
18.43	3	44.2	97.20	54 56
18.60	1	44.3	97.22	56 14
16.47	9	44.8	97.31	56 44
18.60	3	45.0	97.33	48 20
18.66	2	45.0	97.34	51 11
15.39	10	45.4	97.40	48 58
17.89	3	45.7	97.45	48 41
17.81	3	45.8	97.47	45 32
16.92	7	45.8	97.48	55 21
17.09	7	46.4	97.59	52 49
15.67	10	46.6	97.61	47 38
18.51	2	47.2	97.74	50 48
16.96	5	47.2	97.74	56 00
18.60	2	47.6	97.78	46 45
16.82	7	47.8	97.85	56 41
14.39	14	47.9	97.86	58 50
16.42	8	48.0	97.86	49 27
17.99	3	48.0	97.87	46 07
16.99	8	48.4	97.94	53 11
17.23	7	48.5	97.96	55 02
18.61	3	48.5	97.97	56 45
18.62	3	48.5	97.97	51 12
17.09	7	48.7	97.98	49 30
16.52	7	48.8	98.01	53 55
18.77	2	48.9	98.03	50 38
18.77	2	49.1	98.05	49 10
18.28	2	49.1	98.05	49 05
18.66	2	49.5	98.12	48 10
15.08	12	49.8	98.18	46 02
18.43	2	49.9	98.20	49 10

261—320				
Mag.		α 38^m	x	y+50′
		s	′	′ ″
14.17	15	50.0	98.23	53 33
17.30	7	50.2	98.27	51 28
16.91	7	50.3	98.29	56 44
18.29	3	50.6	98.33	54 20
18.45	2	50.6	98.34	46 13
18.48	3	50.8	98.37	56 48
17.95	3	50.9	98.38	45 56
18.13	3	51.3	98.46	57 53
18.60	1	51.3	98.47	53 31
18.48	3	51.4	98.48	56 19
17.31	3	51.5	98.49	47 15
17.68	3	51.7	98.54	58 10
18.52	3	51.9	98.57	52 27
18.38	2	51.9	98.57	51 16
18.05	3	52.1	98.60	54 07
18.14	3	52.4	98.65	55 11
15.11	11	52.8	98.72	48 53
16.29	9	52.8	98.72	56 52
15.88	9	52.8	98.72	58 34
17.02	7	52.9	98.75	52 51
18.43	3	52.9	98.75	51 35
13.56	17	53.1	98.77	48 37
18.07	1	53.1	98.79	55 20
16.27	8	53.4	98.83	53 24
17.78	3	53.5	98.85	47 41
17.84	3	53.6	98.86	55 17
17.08	7	53.6	98.86	53 03
13.52	18	53.6	98.86	50 37
18.40	3	53.6	98.87	54 56
18.48	2	53.6	98.87	54 37
17.07	7	53.7	98.88	59 12
17.68	5	53.9	98.91	54 00
18.20	3	54.0	98.94	45 40
18.42	2	54.1	98.95	53 41
18.45	3	54.2	98.97	53 16
17.60w	2	54	99.0	50 12
16.39	7	54.4	99.00	54 00
16.35	8	54.4	99.00	51 00
13.23	18	54.5	99.03	50 37
18.65	3	54.5	99.04	57 04
17.90	3	54.6	99.05	47 25
17.63	7	54.7	99.06	53 47
18.60	1	54.8	99.09	56 40
17.35	3	54.9	99.10	49 27
18.52	2	55.0	99.11	53 50
16.96	7	55.3	99.17	55 20
18.42	1	56.3	99.34	46 45
16.63	8	56.3	99.35	52 19
18.23	3	56.4	99.36	54 50
18.36	1	56.4	99.37	45 43
16.95	7	56.6	99.39	48 29
18.37	3	56.6	99.40	46 11
18.48	1	57.0	99.46	59 12
18.54	1	57.1	99.48	57 26
18.54	1	57.2	99.51	50 05
17.11	2	57.4	99.55	59 39
15.79	10	57.5	99.56	59 41
18.38	2	57.5	99.57	53 36
15.69	10	57.5	99.57	58 11
17.50	2	57.6	99.59	57 30

321—380				
Mag.		α 38^m	x	y+50′
		s	′	′ ″
17.13	7	57.9	99.64	57 37
18.60	1	57.9	99.64	54 06
12.11	16	58.2	99.68	48 57
16.51	8	58.7	99.77	45 18
16.10	8	58.9	99.81	46 48
17.90	3	59.1	99.84	46 32
15.50	10	59.1	99.84	56 10
17.91	3	59.2	99.87	55 46
15.51	10	59.3	99.88	59 57
18.55	3	59.3	99.88	52 22
15.77	9	60.0	0.00	55 37
15.63	9	60.1	0.02	57 30
18.70	2	60.2	0.03	53 36
18.60	1	60.2	0.04	54 59
18.25	3	60.8	0.14	47 32
18.24	3	60.9	0.16	46 03
16.95	7	60.9	0.17	53 23
18.48	1	61.5	0.26	48 40
16.97	7	61.7	0.30	58 09
17.45	7	62.0	0.36	53 56
17.85	3	62.2	0.36	47 59
18.00	3	62.2	0.38	46 15
16.72	8	62.2	0.39	51 41
15.56	11	62.3	0.41	59 02
17.41	3	62.3	0.41	58 41
17.73	3	62.4	0.43	55 12
18.42	1	62.5	0.44	45 47
18.54	1	62.6	0.46	52 49
14.58	13	62.7	0.49	51 22
18.26	3	62.9	0.52	53 19
18.79	2	63.1	0.55	58 19
18.27	3	63.1	0.55	48 13
18.55	3	63.2	0.56	54 30
18.42	1	63.4	0.60	47 14
17.89	3	64.1	0.73	51 13
14.59	13	64.2	0.74	58 56
14.48	14	64.2	0.75	47 29
17.26	5	64.3	0.76	55 42
17.97	3	64.3	0.77	57 43
18.42	1	64.4	0.78	58 02
18.11	2	64.6	0.81	48 03
17.69	3	64.6	0.81	53 45
17.37	7	64.6	0.81	51 34
16.81	7	64.6	0.82	50 45
16.40	7	64.8	0.85	55 10
18.54	1	65.2	0.91	55 37
17.59	3	65.2	0.92	46 19
17.77	3	65.3	0.95	52 11
16.06	9	65.4	0.97	53 25
15.52	9	65.5	0.98	48 31
16.17	8	65.7	1.00	57 29
18.14	3	65.6	1.00	52 15
17.42	5	65.9	1.05	51 07
17.17	7	66.0	1.07	50 31
16.22	8	66.3	1.12	54 45
18.03	3	66.3	1.12	46 14
17.49	3	66.4	1.14	54 18
18.28	3	66.6	1.16	53 40
18.48	1	66.7	1.18	53 53
18.17	3	66.7	1.18	59 50

381—440				
Mag.		α 39^m	x	y+50′
		s	′	′ ″
17.57	3	6.7	1.19	51 37
18.46	3	6.9	1.23	54 30
17.40	5	6.9	1.23	59 14
17.98	3	7.0	1.25	50 12
16.67	5	7.1	1.26	58 06
16.44	8	7.2	1.27	48 16
18.14	2	7.6	1.34	47 08
16.67	8	7.6	1.35	49 00
16.76	7	7.6	1.35	58 56
17.82	3	8.1	1.43	51 42
18.05	3	8.3	1.47	57 19
16.10	8	8.3	1.47	45 42
16.90	7	8.3	1.47	46 28
17.31	7	8.6	1.52	48 52
18.00	3	8.8	1.56	58 31
16.52	8	8.8	1.57	47 21
15.88	10	8.9	1.58	57 40
14.31	14	8.9	1.58	55 07
17.98	3	9.1	1.61	57 10
18.48	1	9.1	1.61	51 31
15.42	10	9.2	1.64	54 10
15.90	10	9.8	1.73	47 13
18.14	3	9.8	1.74	56 49
15.74	10	10.3	1.82	54 34
18.51	2	10.3	1.83	48 30
16.35	8	10.3	1.83	46 01
17.41	3	10.3	1.83	55 55
16.85	7	10.4	1.85	55 31
14.32	13	10.8	1.91	56 24
18.03	3	10.9	1.94	57 11
18.48	1	11.1	1.96	58 30
18.42	1	11.1	1.97	48 30
15.72	10	11.3	2.00	51 49
18.16	3	11.4	2.02	50 45
18.24	3	11.4	2.02	50 26
16.90	7	11.5	2.02	48 55
17.85	3	11.4	2.03	46 54
18.48	1	11.4	2.03	53 10
18.48	1	11.7	2.08	49 51
17.18	3	12.0	2.13	59 40
16.71	7	12.1	2.15	57 56
17.24	7	12.2	2.17	57 37
18.48	1	12.3	2.18	52 24
17.85	3	12.6	2.23	47 33
16.83	7	12.7	2.25	53 13
18.33	3	13.2	2.34	53 49
17.71	3	13.3	2.36	54 08
18.01	3	13.3	2.36	49 52
16.85	7	13.3	2.36	45 22
18.00	2	13.4	2.36	58 36
17.29	1	13.5	2.39	56 25
17.05	5	13.8	2.45	50 01
16.71	7	14.0	2.49	49 27
17.95	3	14.2	2.51	47 40
18.22	1	14.2	2.52	47 15
16.27	8	14.3	2.54	59 46
17.91	1	14.5	2.57	52 18
18.44	3	14.6	2.59	51 44
17.85	3	14.6	2.59	55 28
15.08	11	14.7	2.60	58 50

441—483				
Mag.		α 39^m	x	y+50′
		s	′	′ ″
15.14	12	14.8	2.62	47 25
17.77:	3	14.8	2.63	47 51
16.72	8	14.8	2.63	50 30
16.16	8	14.9	2.64	52 13
17.60	3	15.0	2.65	58 29
16.66	7	15.3	2.72	46 10
17.53	3	15.4	2.73	59 42
18.21	3	15.5	2.74	55 35
17.65	3	15.5	2.75	56 45
16.84	7	15.6	2.77	51 22
17.06	5	15.6	2.77	52 12
15.83	9	15.7	2.79	56 41
15.68	9	16.0	2.83	47 02
17.87	3	16.0	2.83	52 35
18.38	3	16.0	2.83	50 47
17.07	7	16.0	2.84	58 05
16.09	9	16.2	2.86	50 20
18.07	1	16.3	2.88	58 05
18.07	1	16.6	2.93	56 31
17.45	3	16.6	2.94	59 07
17.45	3	16.7	2.96	47 54
17.08	7	16.9	2.99	48 01
15.52	10	17.4	3.08	46 38
16.89	7	18.0	3.18	59 58
17.08	7	18.0	3.20	49 00
18.13	3	18.1	3.22	48 22
17.95	3	18.2	3.23	48 10
15.34	10	18.3	3.24	56 12
17.47	3	18.5	3.28	57 00
14.76	14	18.6	3.30	54 28
17.02	7	18.7	3.31	50 02
15.63	10	18.8	3.34	49 44
17.18	3	18.8	3.34	59 28
18.28	3	19.1	3.39	59 39
16.69	8	19.2	3.41	51 37
18.26	3	19.4	3.44	52 22
15.66	9	19.4	3.44	45 45
18.34	2	19.6	3.47	46 13
18.22	3	19.7	3.50	46 33
16.84	7	19.8	3.52	53 19
18.48	1	20.0	3.55	53 27
18.60	2	20.1	3.56	58 20
14.54	12	20.5	3.63	55 54

25 prec. + 107ˢ.8, + 2′ 53″

1s—60s				
Mag.		α 37^{m}	x	$\frac{y+50'}{y-10'}$
		s	′	′
15.06	11	35	85.0	53.8
18.28	2	36	85.1	55.0
18.34	2	36	85.2	57.3
16.47	7	37	85.4	50.7
16.67	6	38	85.5	57.7
16.78	6	38	85.6	51.2
16.56	6	39	85.6	53.0
16.70	6	39	85.7	56.2
16.36	7	40	85.8	51.3
14.41	12	40	85.8	51.6
16.77	6	40	85.8	53.1
18.17	2	40	85.8	54.8
17.18	2	39	85.8	58.6
15.79	7	40	85.9	56.6
16.00	7	40	85.9	57.1
15.28	8	41	86.0	50.0
18.10	2	42	86.2	49.4
18.10	2	42	86.2	50.1
17.88	2	42	86.2	50.3
18.40	2	42	86.2	54.2
17.72	2	43	86.4	48.8
15.47	9	44	86.6	53.9
18.48	2	44	86.6	55.4
16.67	6	46	86.8	50.6
16.38	6	46	86.8	52.0
18.21	2	45	86.8	53.7
17.75	2	46	86.9	57.5
16.51	7	46	86.9	0.8
16.62	6	47	87.0	47.8
14.10	13	46	87.0	49.5
17.90	2	48	87.2	51.9
16.05	7	48	87.2	52.9
18.00	2	48	87.2	58.4
17.97	2	48	87.3	55.6
16.74	6	48	87.3	1.3
16.86	6	49	87.4	49.8
17.94	2	49	87.4	51.9
18.41	2	49	87.4	56.6
18.26	2	49	87.5	52.4
16.72	6	50	87.6	55.7
18.60	2	50	87.6	57.7
16.30	7	50	87.6	58.4
18.26	2	51	87.7	49.0
18.20	2	51	87.7	56.2
18.22	2	51	87.7	57.2
12.98	14	51	87.8	47.9
18.14	2	51	87.8	50.9
16.29	7	51	87.8	52.6
18.21	2	51	87.8	55.4
18.15	2	52	87.9	59.5
16.90	5	52	88.0	50.6
18.40	2	53	88.1	52.9
16.92	6	53	88.1	55.6
16.82	6	53	88.2	51.9
17.85	2	53	88.2	0.8
16.77	5	54	88.3	51.4
6.25	7	54	88.3	0.9
5.86	7	55	88.4	48.0
5.77	7	55	88.4	51.4
8.38	2	54	88.4	56.5

61s—120s				
Mag.		α 37^{m}	x	$\frac{y+50'}{y-10'}$
		s	′	′
18.18	2	54	88.4	56.9
17.44	2	54	88.4	59.4
17.92	2	54	88.4	0.5
11.82	13	56	88.6	55.6
16.55	7	55	88.6	56.8
17.22	4	55	88.6	57.6
17.53	2	56	88.7	1.4
17.98	2	58	89.1	1.1
16.26	7	60	89.4	2.4
18.12	2	65	90.3	2.9
16.76	6	65	90.3	3.6
17.84	2	66	90.4	4.3
15.97	7	66	90.6	2.0
17.16	2	67	90.6	3.6
18.40	2	67	90.7	1.2
15.65	8	67	90.7	4.0
18.02	2	68	90.9	1.9
15.14	10	68	90.9	2.1
16.90	4	68	90.9	3.1
18.06	2	69	91.0	0.6
16.44	7	70	91.2	1.0
18.46	2	72	91.4	0.8
16.56	6	73	91.6	44.6
16.96	4	73	91.6	4.0
18.01	2	74	91.9	44.8
17.13	4	74	91.9	0.2
18.52	2	74	91.9	0.6
18.07	2	74	91.9	4.7
16.29	6	74	91.9	4.9
17.04	6	76	92.2	0.8
14.96	10	76	92.2	3.2
16.34	7	76	92.2	4.7
16.37	7	76	92.3	4.2
17.31	4	77	92.4	0.3
15.85	7	79	92.7	44.0
15.28	10	80	92.9	2.1
15.58	8	82	93.2	43.9
15.51	8	82	93.3	43.7
18.02	2	82	93.3	44.0
16.14	7	82	93.3	5.0
15.32	10	84	93.7	0.7
16.98	4	85	93.9	3.7
15.47	9	86	94.0	0.5
18.17	2	86	94.0	5.0
17.56	2	87	94.1	43.9
18.33	2	87	94.1	2.7
17.30	2	87	94.1	5.2
17.47	2	87	94.2	43.3
18.28	2	87	94.2	0.6
15.20	9	88	94.4	2.9
15.73	8	89	94.5	2.6
18.40	2	91	94.8	3.2
18.07	2	91	94.9	3.4
17.72	2	91	94.9	3.9
17.97	2	92	95.0	5.4
17.78	2	92	95.0	5.7
18.06	2	92	95.1	1.4
18.40	2	92	95.1	1.5
17.14	6	92	95.1	1.9
17.96	2	92	95.1	5.5

121s—180s				
Mag.		α 38^{m}	x	$\frac{y+50'}{y-10'}$
		s	′	′
17.78	2	34	95.3	44.2
17.38	2	34	95.4	5.9
16.34	7	35	95.5	0.8
18.44	2	36	95.8	2.1
17.86	2	36	95.8	5.6
14.57	11	37	95.9	0.4
17.16	4	37	95.9	2.3
16.54	6	37	96.0	2.3
12.51	14	38	96.1	3.4
17.90	2	38	96.1	4.1
17.37	6	38	96.2	0.8
18.05	2	39	96.3	3.6
14.07	12	40	96.4	43.4
17.11	5	40	96.4	43.8
16.01	7	40	96.4	3.0
15.92	8	40	96.5	1.0
16.94	6	41	96.7	44.7
16.39	7	42	96.8	45.0
17.95	2	44	97.1	1.9
17.76	2	44	97.1	2.1
14.88	11	44	97.2	43.6
16.45	7	44	97.2	0.8
15.01:	9	44	97.2	1.5
17.96	2	45	97.3	1.1
18.44	2	45	97.3	1.2
16.13	7	45	97.3	4.1
16.04	7	46	97.5	3.0
17.90	2	46	97.5	3.8
16.45	7	46	97.6	44.0
17.28	6	47	97.7	2.4
18.39	2	47	97.7	4.3
18.05	2	47	97.7	5.7
18.23	2	48	97.8	0.4
17.18	2	50	98.2	44.9
17.64	2	50	98.2	3.4
15.60	8	50	98.3	1.1
17.27	6	50	98.3	1.9
16.88	6	51	98.4	44.9
16.27	7	51	98.4	2.4
14.15	12	51	98.4	4.6
16.65	7	53	98.7	1.4
17.23	6	53	98.7	1.9
18.04	2	53	98.7	2.1
18.04	2	53	98.8	44.1
17.61	2	54	98.9	43.7
17.19	6	54	98.9	2.0
13.50	15	55	99.1	44.9
14.53	11	55	99.1	3.1
17.94	2	56	99.3	3.9
18.13	2	56	99.3	4.0
17.84	2	56	99.3	4.7
16.47	6	58	99.6	0.4
15.89	7	58	99.7	4.3
16.88	6	60	0.0	44.0
17.91	2	60	0.0	0.3
18.08	2	60	0.0	1.8
18.36	2	61	0.1	44.2
15.20	9	61	0.2	0.6
16.38	6	61	0.2	3.2
18.17	2	62	0.3	1.8

181s—240s				
Mag.		α 39^{m}	x	$\frac{y+50'}{y-10'}$
		s	′	′
13.90	12	4	0.7	1.4
14.78	10	4	0.7	5.2
17.82	2	6	1.0	44.7
17.22	6	6	1.0	1.1
15.24	10	6	1.1	0.7
15.19	10	7	1.3	44.9
18.21	2	7	1.3	1.2
16.67	6	7	1.3	2.9
18.44	2	8	1.4	0.0
15.07	10	9	1.6	0.6
17.83	2	12	2.0	1.8
16.15	7	12	2.1	0.9
16.21	7	13	2.2	3.6
18.18	2	14	2.4	2.2
15.90	7	14	2.5	3.8
18.11	2	16	2.8	1.9
17.90	2	18	3.2	2.0
16.58	6	19	3.3	2.7
17.39	2	20	3.6	46.3
16.37	7	20	3.6	49.5
16.80	6	21	3.7	0.8
18.20	2	21	3.7	1.0
17.90	2	22	3.9	53.0
17.44	2	23	4.0	47.0
17.22	4	23	4.0	48.0
17.76	2	23	4.0	51.2
17.24	6	22	4.0	53.4
15.39	9	23	4.1	47.0
17.78	2	23	4.1	51.0
17.20	6	23	4.1	56.1
17.20	3	23	4.1	56.2
16.95	6	23	4.1	0.8
16.37	7	24	4.2	48.3
18.24	2	24	4.2	51.0
18.15	2	24	4.2	0.9
17.82	2	24	4.3	47.6
17.24	2	24	4.3	48.4
18.24	2	24	4.3	0.4
13.35	13	25	4.4	54.0
16.61	7	25	4.5	49.3
17.99	2	26	4.6	47.6
17.70	2	26	4.6	52.6
15.11	10	26	4.7	47.6
18.02	2	26	4.7	48.0
15.88	8	27	4.7	54.8
15.20	9	27	4.7	59.4
17.71	2	27	4.8	53.1
17.10	6	27	4.8	57.1
18.06	2	28	4.9	49.4
18.00	2	28	5.0	51.9
16.75	7	28	5.0	52.7
15.87	8	28	5.0	54.6
17.66	2	29	5.1	56.3
16.85	6	30	5.2	50.3
14.65	11	29	5.2	53.0
16.34	7	29	5.2	58.3
17.76	2	29	5.2	58.7
15.78	7	30	5.3	48.8
16.62	6	30	5.3	50.2
17.25	4	31	5.4	50.7

241s—272s				
Mag.		α 39^{m}	x	$y+50'$
		s	′	′
10.84	10	31	5.4	59.6
14.47	11	32	5.6	48.3
17.36	2	32	5.6	55.8
17.81	2	33	5.8	50.1
14.82	10	33	5.8	54.1
14.33	11	33	5.9	48.9
17.69	2	33	5.9	51.8
17.91	2	33	5.9	52.0
16.67	6	33	5.9	56.0
18.02	2	33	5.9	56.4
16.28	7	33	5.9	56.6
16.13	7	33	5.9	58.7
16.50	6	33	5.9	59.8
17.61	2	34	6.0	59.4
16.98	6	34	6.1	55.9
15.25	9	34	6.1	58.0
17.12	2	35	6.2	49.2
18.05	2	35	6.2	50.3
15.07	9	35	6.2	58.0
18.08	2	36	6.4	59.3
17.90	2	37	6.6	54.8
14.59	10	37	6.6	55.5
17.83	2	37	6.6	56.0
14.54	11	38	6.8	53.2
17.08	6	38	6.8	55.0
17.58	2	39	6.9	51.2
17.86	2	40	7.0	57.6
16.89	6	41	7.2	54.1
16.78	6	41	7.2	54.2
15.62	9	41	7.2	56.6
16.84	6	41	7.3	56.8
17.88	2	42	7.5	55.0

25 prec. + $107^{s}.8$, + 2′ 55″

Area 25. Center for 1900: $5^h\ 37^m + 44°\ 50'$ ($15' \times 15'$)

1—60

Mag.		α 36^m	x	y+50′
		s	′	′ ″
16.92	6	43.2	97.02	43 37
18.06	3	43.3	97.04	54 24
16.30	8	43.5	97.06	52 25
14.22	13	43.5	97.06	51 28
18.34	2	43.6	97.11	47 50
18.50	1	43.9	97.16	50 47
18.48	2	44.1	97.18	43 53
16.72	6	44.4	97.24	43 24
16.19	8	44.5	97.25	45 54
15.61	10	44.7	97.28	46 36
17.88	3	44.7	97.28	42 25
17.52	5	45.0	97.34	49 30
17.01	6	45.1	97.36	51 11
16.36	8	45.1	97.37	45 55
18.50	1	45.2	97.38	49 46
18.05	3	45.3	97.38	42 14
15.20	11	45.2	97.39	45 22
18.13	3	45.4	97.41	46 13
16.19	8	45.5	97.44	49 09
18.09	3	45.6	97.45	51 35
16.56	6	45.6	97.45	40 33
17.79	3	45.8	97.48	46 43
17.43	6	45.9	97.50	47 30
16.82	6	46.0	97.52	52 13
16.56	6	46.0	97.52	41 17
15.54	10	46.1	97.54	54 08
18.53	3	46.2	97.55	41 30
16.77	5	46.5	97.60	50 24
18.57	3	46.5	97.61	46 35
14.70	13	46.6	97.63	49 26
15.19	11	46.8	97.67	49 52
16.59	6	47.4	97.76	46 27
17.42	5	47.5	97.78	48 05
17.75	3	47.7	97.81	44 18
18.27	3	47.8	97.84	51 59
17.52	4	48.5	97.97	44 14
18.50	1	49.3	98.10	45 30
18.43	1	49.4	98.13	53 19
17.40	5	49.7	98.18	53 44
15.27	10	49.9	98.21	42 08
18.25	3	49.9	98.22	50 12
13.83	13	50.0	98.23	42 14
18.28	3	50.2	98.26	49 53
16.45	8	50.2	98.27	52 46
17.13	6	50.3	98.28	52 40
17.18	6	50.6	98.34	42 57
18.77	3	50.8	98.37	49 23
15.78	9	50.9	98.38	43 02
18.64	3	51.0	98.40	51 51
17.71	5	51.4	98.49	49 50
18.43	1	51.5	98.49	41 21
17.60	5	51.7	98.54	50 36
16.39	6	52.0	98.58	53 26
15.39	10	52.1	98.60	41 52
17.71	3	52.5	98.67	41 13
18.57	3	52.9	98.75	48 19
16.19	9	52.9	98.75	47 09
15.83	9	53.0	98.77	45 46
18.25	3	53.1	98.78	54 08
14.37	11	53.4	98.84	48 11

61—120

Mag.		α 36^m	x	y+50′
		s	′	′ ″
18.05	3	53.7	98.89	54 56
18.67	3	54.0	98.93	45 53
18.62	3	54.0	98.93	40 45
17.12	6	54.1	98.95	42 03
17.46	5	54.3	98.99	53 44
17.98	3	54.4	99.01	41 17
16.35	9	56.0	99.29	47 50
17.85	3	56.1	99.31	46 27
18.72	3	56.7	99.42	51 56
18.30	3	56.8	99.44	53 50
18.43	1	57.5	99.57	54 50
17.95	3	58.0	99.65	49 14
17.90	3	58.4	99.72	54 53
17.21	6	58.7	99.77	42 52
18.19	1	59.5	99.91	41 04
18.97	3	59.6	99.94	45 00
18.50	1	60.9	0.16	43 41
16.41	6	61.2	0.21	49 00
17.92	3	61.2	0.22	48 45
17.54	5	62.1	0.36	53 23
17.79	3	62.6	0.46	44 47
15.88	9	63.2	0.57	41 39
18.33	2	63.4	0.60	54 14
15.27	10	63.5	0.62	40 53
18.18	3	63.9	0.70	40 53
18.43	3	64.1	0.73	42 50
15.36	9	64.3	0.77	44 01
17.09	5	64.3	0.77	53 20
14.47	13	64.6	0.81	41 06
15.04	9	65.0	0.88	46 36
15.45	8	65.0	0.89	46 32
17.93	3	65.1	0.90	47 42
13.75	12	65.2	0.92	43 46
16.24	8	65.2	0.92	41 54
18.14	3	65.2	0.93	45 16
17.18	5	65.5	0.98	42 10
18.08	3	65.7	1.01	48 30
15.93	9	65.9	1.05	44 20
18.22	3	66.0	1.07	45 48
15.45	11	66.6	1.17	40 17
18.72	3	66.7	1.19	48 57
16.65	8	67.2	1.29	41 41
16.49	8	67.4	1.31	45 15
18.26	3	67.5	1.33	50 06
18.49	3	67.5	1.33	52 59
18.14	3	67.7	1.36	47 22
18.28	3	68.0	1.41	47 48
16.98	6	68.0	1.41	48 51
18.28	3	68.4	1.48	50 18
18.46	3	68.4	1.50	42 29
17.97	3	68.5	1.51	43 12
17.26	6	68.6	1.54	42 05
18.73	1	68.7	1.54	47 49
18.99	3	68.9	1.59	52 16
17.62	3	69.0	1.60	52 35
15.00	9	69.4	1.67	44 05
16.64	6	69.8	1.74	40 17
18.56	3	70.2	1.80	47 21
18.80	3	70.4	1.84	48 44
15.34	10	70.4	1.85	41 47

121—180

Mag.		α 37^m	x	y+50′
		s	′	′ ″
17.14	5	10.6	1.88	44 09
16.06	9	10.9	1.92	45 02
16.63	8	10.9	1.93	46 50
18.16	3	11.0	1.95	49 56
18.44	3	11.2	1.98	43 59
16.64	8	11.2	1.99	48 25
17.20	6	11.3	2.00	47 21
16.38	9	11.4	2.03	40 39
17.35	4	11.5	2.04	46 30
18.66	1	11.6	2.06	48 11
15.46	9	11.6	2.07	45 10
16.49	6	11.7	2.08	54 26
17.44	6	12.2	2.16	52 04
17.53	5	12.4	2.20	46 02
17.60	6	12.5	2.23	43 57
15.39	10	12.8	2.27	47 46
17.36	5	12.8	2.29	40 27
18.35	3	13.2	2.35	52 20
16.98	8	13.5	2.40	45 31
18.16	3	13.6	2.41	41 37
18.57	3	13.6	2.42	51 14
18.25	3	14.0	2.49	42 44
16.51	8	14.1	2.50	45 43
17.56	5	14.1	2.50	48 24
16.88	8	14.4	2.55	45 38
17.38	6	15.1	2.69	45 59
16.90	6	15.1	2.69	41 05
18.41	3	15.1	2.69	53 06
16.69	6	15.2	2.70	41 40
18.47	3	15.5	2.75	47 08
16.38	8	16.3	2.89	53 11
17.97	3	16.3	2.90	42 44
16.34	8	16.4	2.90	46 22
18.21	3	16.5	2.92	48 43
18.73	1	16.8	2.99	46 16
16.09	9	17.3	3.07	46 24
16.87	6	17.4	3.09	43 13
14.93	12	17.5	3.10	47 02
18.68	3	17.6	3.12	46 00
16.07	8	17.8	3.16	40 30
17.41	5	17.8	3.17	53 36
18.34	3	17.9	3.18	44 54
16.29	8	17.9	3.19	41 00
12.82w	13	18.0	3.20	43 21
14.78	11	18.2	3.23	42 23
17.54	5	18.5	3.29	46 27
18.74	3	18.6	3.30	48 24
18.25	3	18.8	3.33	46 02
17.72	5	19.0	3.36	45 30
18.92	3	19.2	3.41	49 11
16.39	7	19.9	3.53	48 15
15.70	8	19.9	3.53	44 24
18.55	2	20.1	3.56	53 00
16.59	8	20.2	3.58	41 09
17.35	6	20.2	3.58	42 17
18.24	3	20.5	3.64	54 26
18.74	3	20.8	3.68	45 54
15.04	11	20.7	3.68	41 53
17.65	3	20.7	3.69	42 26
18.64	3	21.2	3.76	51 31

181—240

Mag.		α 37^m	x	y+50′
		s	′	′ ″
17.13	6	21.2	3.77	54 19
16.12	9	21.6	3.83	40 56
17.89	4	21.8	3.87	50 02
14.82	12	22.0	3.90	43 52
15.87	8	22.2	3.93	46 28
18.55	3	22.6	4.01	45 27
17.74	5	23.0	4.08	49 10
17.14	6	23.3	4.13	43 05
14.85	11	23.3	4.13	42 09
17.47	5	23.6	4.18	53 28
15.34	11	24.2	4.29	50 28
9.29w	**5**	**24.2**	**4.29**	**47 37**
18.66	1	24.2	4.30	44 32
16.39	8	24.5	4.34	51 31
15.73	9	24.6	4.36	54 40
17.80	3	24.7	4.39	53 44
17.93	3	24.7	4.39	52 39
18.69	3	24.9	4.41	48 41
18.24	3	25.0	4.44	43 10
18.67	3	25.0	4.44	44 37
16.57	6	25.6	4.55	41 01
18.44	3	25.7	4.56	44 00
16.11	9	25.8	4.58	41 16
18.57	3	25.9	4.60	43 22
18.12d	1	25.9	4.60	51 32
16.95	6	26.0	4.61	44 30
18.43	3	26.4	4.69	50 12
17.55	5	26.5	4.70	53 13
18.40	3	26.5	4.70	42 17
18.56	3	26.7	4.74	52 15
17.87	3	26.8	4.75	47 32
17.06	6	27.0	4.78	46 08
16.15	7	27.0	4.79	45 41
16.99	6	26.9	4.79	42 20
15.68	11	27.4	4.86	53 16
17.37	5	27.5	4.88	46 37
18.11	3	27.5	4.88	54 50
18.51	3	28.4	5.03	46 51
18.12	3	28.6	5.07	46 47
15.66	9	28.7	5.08	52 28
17.18	5	28.9	5.13	48 35
16.92	6	29.0	5.14	47 57
17.57	5	29.1	5.16	53 31
17.88	3	29.1	5.16	52 45
17.95	3	29.2	5.19	52 39
17.16	5	29.2	5.19	53 23
16.90	5	29.2	5.19	54 16
18.33	3	29.3	5.20	46 29
18.03	3	29.4	5.22	51 44
15.21	11	29.8	5.28	53 54
15.82	10	30.0	5.31	47 41
18.68	3	30.0	5.32	51 28
17.82	5	30.4	5.39	46 14
17.59	5	30.4	5.39	45 45
18.12	3	30.9	5.49	46 46
16.53	8	31.0	5.51	40 18
18.58	1	31.3	5.55	53 39
18.18	3	31.5	5.59	50 02
18.05	3	31.5	5.59	54 25
18.01	3	31.5	5.60	41 24

241—300

Mag.		α 37^m	x	y+50′
		s	′	′ ″
17.61	5	31.7	5.62	49 19
18.50	1	32.0	5.68	53 34
16.16	8	32.2	5.72	54 51
17.77	3	32.3	5.74	41 20
18.65	3	33.7	5.98	53 36
17.69	3	33.9	6.01	54 41
17.47	4	33.9	6.02	40 51
16.85	6	34.2	6.07	47 17
17.97	3	34.4	6.10	49 43
17.48	3	34.8	6.17	54 19
14.61	12	34.9	6.19	53 46
17.77	3	35.0	6.20	46 39
17.79	3	35.0	6.20	45 30
18.17	3	35.2	6.24	48 31
16.59	8	35.6	6.32	43 11
15.21	11	35.6	6.33	40 25
16.47	8	35.7	6.35	43 20
13.84	13	35.9	6.37	48 11
16.57	8	36.9	6.55	42 02
18.24	3	37.0	6.56	51 11
18.47	3	37.2	6.60	42 29
18.63	2	37.7	6.70	42 54
17.73	3	38.3	6.78	50 53
15.50	9	38.7	6.87	47 30
16.94	6	39.0	6.92	49 47
16.55	8	39.4	6.98	51 52
15.25	10	39.8	7.07	53 45
17.86	3	39.9	7.08	49 18
17.76	5	40.2	7.14	45 39
15.80	7	40.4	7.17	52 40
15.29	11	40.4	7.17	50 57
18.56	2	40.5	7.19	52 10
18.05	3	40.6	7.21	44 20
18.25	3	40.7	7.22	53 18
18.05	3	40.8	7.24	52 26
17.93	3	41.1	7.28	50 10
18.00	3	41.1	7.28	49 09
16.45	8	41.3	7.32	45 52
14.67	11	41.4	7.34	54 14
18.17	3	42.0	7.47	40 40
16.86	6	42.6	7.56	43 09
18.62	3	42.8	7.58	49 15
17.95	3	42.8	7.58	50 58
17.80	3	43.0	7.62	52 51
15.52	10	43.2	7.67	48 39
15.14	11	43.3	7.68	52 18
17.56	5	43.8	7.77	47 14
17.93	3	43.8	7.79	43 10
18.83	3	44.4	7.87	47 29
18.12d	1	44.8	7.95	52 58
18.43	1	44.9	7.98	40 41
18.52	3	45.5	8.06	48 30
18.62	3	45.5	8.06	46 34
18.50	1	45.7	8.11	41 26
16.90	6	46.0	8.16	54 22
17.39	6	46.4	8.24	42 53
16.88	6	46.6	8.28	43 24
15.54	9	46.9	8.34	41 37
16.27	8	47.1	8.37	42 55
18.35	1	47.2	8.39	41 19

25 prec. + $109^s.8$, + 0′ 50″

301—320				321—340				341—360				361—380				381—389			
Mag.	α 37^{m}	x	$y+50'$	Mag.	α 37^{m}	x	$y+50'$	Mag.	α 37^{m}	x	$y+50'$	Mag.	α 38^{m}	x	$y+50'$	Mag.	α 38^{m}	x	$y+50'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.99 3	47.8	8.48	53 54	18.48 3	52.5	9.31	49 05	17.23 6	56.5	10.04	41 53	17.50 5	2.0	11.00	49 51	17.98 3	6.3	11.78	44 39
18.29 3	48.0	8.51	47 40	15.44 10	52.7	9.34	53 52	18.43 3	56.8	10.06	53 42	15.69 9	2.1	11.02	47 40	17.54 4	6.4	11.80	43 30
13.14 11	48.1	8.53	50 08	18.52 3	52.8	9.36	54 05	18.51 3	57.3	10.17	49 09	16.72 6	2.2	11.03	45 39	15.62 9	6.7	11.82	45 07
16.10 8	48.4	8.58	54 24	9.20w 7	52.8	9.38	41 22	17.78 3	57.6	10.21	50 54	18.46 3	2.1	11.04	40 06	17.17 6	6.7	11.85	43 56
18.14 3	48.6	8.61	46 14	17.24 5	52.8	9.38	42 39	17.87 3	57.7	10.23	53 20	17.16 6	2.4	11.09	40 20	15.37 10	6.9	11.86	46 04
18.56 2	49.0	8.68	47 16	18.54 3	52.8	9.38	44 34	18.16 3	57.6	10.23	42 06	15.85 8	2.4	11.09	40 50	15.51 11	7.0	11.89	45 49
16.85 7	49.4	8.78	41 36	16.50 8	53.0	9.41	41 35	18.08 3	57.7	10.24	48 04	18.05 3	2.7	11.14	41 12	17.99 3	7.2	11.92	54 28
17.11 5	49.8	8.84	51 07	17.92 3	53.0	9.42	40 12	18.40 3	57.9	10.26	52 34	15.92 9	3.0	11.16	52 29	18.29 3	7.3	11.94	47 31
17.39 6	50.2	8.91	43 26	17.01 8	53.4	9.46	46 20	15.05 11	58.5	10.36	51 58	15.04 11	3.0	11.18	44 40	17.03 5	7.7	12.00	49 59
17.25 5	50.3	8.92	50 28	17.93 3	54.6	9.68	53 16	16.95 6	59.0	10.47	54 26	16.41 6	3.1	11.19	48 39				
18.11 3	50.6	8.96	52 56	15.66 11	54.7	9.70	54 46	17.38 5	59.2	10.51	40 48	17.66 3	3.8	11.32	50 36				
17.97 3	50.6	8.97	47 40	18.58 1	54.7	9.70	46 20	17.37 5	59.8	10.60	54 45	17.90 3	4.0	11.35	52 39				
17.24 6	51.0	9.05	45 11	18.22 3	54.9	9.74	50 46	15.25 9	60.5	10.74	50 01	17.03 6	3.9	11.35	44 08				
18.00 3	51.3	9.10	46 31	16.51 8	55.1	9.77	51 03	16.83 6	60.4	10.74	44 10	18.16 3	4.1	11.37	48 55				
15.83 10	51.4	9.11	53 39	16.73 6	55.0	9.77	40 08	14.97 11	60.5	10.75	44 19	14.94 11	4.5	11.43	50 24				
16.41 8	51.7	9.16	49 55	17.08 6	55.5	9.85	52 39	16.96 6	60.7	10.77	53 17	18.64 3	4.5	11.47	43 36				
14.62 11	51.7	9.17	50 53	18.51 3	56.1	9.95	50 21	15.71 9	60.8	10.79	53 56	18.33 3	5.5	11.62	47 50				
18.72 3	51.8	9.18	46 14	15.82 8	56.3	9.98	47 23	17.75 3	61.0	10.81	51 47	14.98 10	6.0	11.70	52 22				
18.24 3	51.9	9.20	50 46	18.51 3	56.3	9.99	50 37	17.20 5	61.7	10.95	49 42	18.30 2	6.3	11.75	51 17				
17.82 3	52.2	9.25	54 11	15.49 10	56.5	10.02	51 22	18.27 3	61.8	10.96	51 39	16.79 8	6.4	11.76	45 09				

25 prec. + 109^{s}8, + 0′ 48″

5^{h} Area 25. Supplementary Stars + 44°

1s—30s				31s—60s				61s—90s				91s—120s				121s—150s			
Mag.	α 36^{m}	x	$y+50'$	Mag.	α 36^{m}	x	$y+50'$	Mag.	α 36^{m}	x	$y+50'$	Mag.	α 36^{m}	x	$y+50'$	Mag.	α 37^{m}	x	$y+50'$
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
17.38 4	20	92.9	48.2	16.82 5	29	94.6	53.4	18.53 2	36	95.7	53.0	16.24 7	41	96.6	41.9	16.76 5	0	0.0	37.8
16.70 5	21	93.1	49.6	10.80 7	31	94.9	44.3	17.59 4	36	95.8	46.9	18.61 2	41	96.6	42.8	18.48 2	0	0.0	57.1
15.71 9	22	93.3	49.2	16.59 7	31	94.9	46.4	17.15 5	36	95.8	47.2	18.29 2	41	96.6	50.3	17.08 5	2	0.3	37.8
17.47 4	23	93.4	49.3	17.42 4	31	94.9	48.4	16.34 4	36	95.8	50.7	17.98 2	41	96.7	40.5	15.20 9	2	0.3	38.2
16.49 7	24	93.6	45.8	18.55 2	31	94.9	49.2	17.07 4	37	95.9	41.7	18.57 2	41	96.7	47.3	16.50 5	2	0.3	55.4
18.31 2	24	93.6	49.3	17.23 5	32	95.0	47.7	17.90 2	37	95.9	42.5	18.01 2	41	96.7	51.5	17.81 2	4	0.6	37.2
17.75 2	25	93.7	43.5	17.16 4	32	95.0	48.4	16.30 7	37	95.9	44.8	17.20 4	41	96.7	53.3	15.12 9	4	0.6	38.4
18.47 2	25	93.7	44.3	16.86 5	32	95.0	49.4	17.53 4	37	95.9	45.0	18.68 2	42	96.8	53.6	16.80 5	5	0.9	40.0
17.07 5	25	93.7	44.6	18.29 2	32	95.1	42.9	16.74 5	37	95.9	45.2	17.12 5	43	96.9	42.0	13.73 10	6	1.1	58.4
13.79 11	25	93.8	51.1	17.02 5	32	95.1	47.8	18.04 2	37	95.9	46.4	18.40 2	43	96.9	50.2	17.32 5	7	1.3	58.0
15.89 8	26	93.9	46.2	18.19 2	32	95.1	50.3	17.53 4	37	95.9	46.6	18.60 2	42	96.9	53.6	17.01 5	8	1.4	37.0
17.96 2	26	93.9	46.5	17.15 5	32	95.1	53.2	18.55 2	37	95.9	48.4	17.69 2	42	96.9	56.0	18.31 2	8	1.4	57.4
14.70 11	26	93.9	51.8	16.78 5	33	95.2	44.8	15.02 9	37	95.9	50.9	16.46 5	43	97.0	40.1	17.04 5	8	1.5	39.6
18.41 2	26	94.0	42.9	15.96 7	33	95.2	45.4	16.61 5	37	96.0	43.8	17.91 2	43	97.0	45.0	16.49 7	8	1.5	57.3
17.18 5	26	94.0	47.7	15.07 8	33	95.2	46.4	16.23 6	37	96.0	45.2	16.69 5	43	97.0	55.5	16.62 5	9	1.6	37.5
18.45 2	26	94.0	48.0	18.55 2	33	95.2	50.6	17.05 3	37	96.0	48.8	18.01 2	44	97.2	56.3	17.73 2	9	1.6	58.6
16.75 5	27	94.1	43.2	18.21 2	33	95.2	50.8	16.00 7	37	96.0	52.3	14.70 8	45	97.4	56.0	17.46 3	10	1.7	37.4
14.02 12	27	94.1	45.1	18.57 2	34	95.3	43.6	17.59 4	38	96.1	46.7	16.76 4	47	97.8	56.0	18.59 2	10	1.8	38.0
17.79 2	27	94.1	49.4	16.91 5	34	95.3	48.1	18.15 2	39	96.2	40.3	16.87 5	49	98.0	39.6	17.47 2	11	1.9	37.7
18.53 2	27	94.1	49.5	17.33 4	34	95.4	46.3	17.19 5	39	96.2	52.7	17.24 4	52	98.5	56.1	15.57 9	11	1.9	38.5
17.21 5	27	94.1	49.7	16.50 7	34	95.4	50.6	18.35 2	38	96.2	55.4	18.58 2	52	98.6	56.8	18.55 2	11	1.9	56.9
16.60 7	27	94.1	50.8	17.81 2	35	95.5	41.8	18.25 2	39	96.3	39.8	18.02 2	54	98.8	39.6	17.35 5	11	2.0	39.1
17.37 4	27	94.2	50.9	15.91 8	35	95.5	45.8	16.53 5	39	96.3	42.9	13.98 12	55	99.2	38.5	18.41 2	12	2.1	55.1
17.81 2	27	94.2	51.7	16.56 3	35	95.6	43.1	15.51 8	39	96.3	44.8	18.35 2	56	99.3	37.9	18.35 2	13	2.3	36.9
16.16 7	27	94.2	52.3	18.07 2	35	95.6	48.2	17.53 4	40	96.4	44.9	18.53 2	56	99.3	38.0	15.74 8	14	2.5	38.0
16.43 7	28	94.3	45.6	17.59 4	35	95.6	50.9	16.62 4	39	96.4	48.8	18.61 2	58	99.6	57.5	18.60 2	14	2.5	39.6
17.14 4	29	94.5	45.8	17.48 3	35	95.6	51.5	16.26 7	40	96.5	40.3	16.14 5	58	99.6	58.0	18.48 2	14	2.5	57.1
17.27 4	29	94.5	47.3	15.23 8	35	95.6	52.1	16.37 7	40	96.5	41.2	14.11 10	58	99.7	37.4	16.79 5	16	2.8	36.4
17.50 4	29	94.5	47.5	17.74 2	36	95.7	40.8	12.76 13	40	96.5	44.0	17.95 2	58	99.7	55.3	17.48 3	16	2.8	57.5
16.88 5	30	94.6	48.4	14.63 11	36	95.7	48.8	16.72 5	40	96.5	53.9	17.25 2	59	99.8	38.6	17.63 2	16	2.9	37.6

25 prec. + 109^{s}8, + 0′ 50″

5^{h} Area 25. Supplementary Stars + 44°

151s—190s					191s—230s					231s—270s					271s—310s					311s—342s				
Mag.		α 37^{m}	x	y+50′	Mag.		α 37^{m}	x	y+50′	Mag.		α 37^{m}	x	y+50′	Mag.		α 38^{m}	x	y+50′	Mag.		α 38^{m}	x	y+50′
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
14.13	9	17	3.0	56.0	17.45	2	30	5.4	37.3	16.24	7	50	8.9	58.0	17.18	5	10	12.4	49.4	16.34	7	17	13.7	48.5
18.31	2	17	3.0	58.6	18.26	2	31	5.4	39.2	18.45	2	51	9.0	37.4	18.43	2	10	12.5	40.3	17.16	5	18	13.9	48.0
17.79	2	17	3.1	39.1	18.03	2	31	5.5	37.9	16.61	6	52	9.2	38.2	18.29	2	11	12.5	40.4	18.45	2	19	14.0	45.7
13.45	12	18	3.1	58.0	18.57	2	31	5.5	58.2	15.69	9	54	9.5	56.0	17.99	2	11	12.5	51.7	16.82	5	19	14.0	47.2
17.00	5	18	3.2	38.3	16.45	7	33	5.8	38.2	16.69	7	55	9.7	38.0	18.47	2	11	12.5	52.3	18.61	2	19	14.1	43.2
18.03	2	18	3.2	38.6	18.47	2	33	5.8	39.2	13.83	10	55	9.7	55.6	16.66	5	11	12.6	43.1	18.54	2	19	14.1	43.5
18.03	2	18	3.2	58.4	15.65	8	33	5.8	58.0	18.11	2	55	9.7	55.8	17.00	5	11	12.6	54.8	18.49	2	20	14.2	51.9
18.19	2	19	3.3	39.0	17.23	4	33	5.9	37.4	17.07	5	55	9.8	57.5	15.38	8	12	12.7	55.4	16.23	7	21	14.4	42.9
15.68	8	19	3.4	56.5	18.61	2	34	6.0	39.2	17.55	3	56	9.9	39.1	18.39	2	12	12.8	47.4	17.63	2	21	14.4	44.3
17.19	3	20	3.5	37.4	17.98	2	34	6.0	55.3	18.47	2	57	10.2	56.0	18.05	2	12	12.8	48.1	13.99	10	21	14.4	47.0
18.37	2	20	3.5	56.7	17.76	2	34	6.0	56.3	17.85	2	58	10.3	39.4	16.35	7	12	12.8	48.6	18.52	2	22	14.5	49.6
15.46	9	21	3.6	38.6	17.73	2	34	6.0	57.2	18.53	2	60	10.6	38.8	16.94	5	12	12.8	52.5	15.46	8	22	14.5	51.3
17.36	4	21	3.7	56.3	11.42	11	34	6.1	39.5	17.49	2	60	10.7	56.0	16.24	7	12	12.8	52.6	18.02	2	22	14.6	48.6
17.85	2	22	3.8	37.7	17.18	5	34	6.1	40.0	15.47	7	61	10.9	38.7	16.96	5	12	12.8	53.6	18.25	2	22	14.6	48.8
16.95	5	21	3.8	39.6	16.35	7	34	6.1	55.6	18.57	2	61	10.9	39.1	18.41	2	13	12.9	41.2	16.60	7	22	14.6	50.4
18.63	2	21	3.8	57.3	18.80	2	35	6.3	39.4	18.43	2	62	11.1	39.6	17.40	3	13	12.9	43.9	17.45	2	23	14.7	44.4
18.16	2	21	3.8	58.7	18.27	2	35	6.3	40.0	18.43	2	64	11.2	55.8	15.59	8	13	12.9	48.7	17.45	2	23	14.7	46.9
17.85	2	22	3.9	36.8	17.57	2	36	6.4	36.5	17.19	2	66	11.6	39.4	18.01	2	13	13.0	41.4	16.71	5	23	14.7	48.0
14.43	9	22	4.0	38.6	13.63	9	36	6.4	55.6	18.25	2	67	11.9	39.1	18.46	2	13	13.0	43.6	16.94	5	23	14.7	49.8
17.89	2	23	4.0	56.7	18.37	2	38	6.7	37.2	13.49	11	67	11.9	39.7	17.37	2	13	13.0	44.3	14.77	10	23	14.8	49.5
18.42	2	23	4.0	57.0	17.63	2	39	6.8	38.8	18.38	2	68	12.0	50.6	16.16	6	13	13.0	54.3	17.17	5	23	14.8	50.4
17.65	2	23	4.1	57.6	15.15	6	38	6.8	55.5	18.58	2	68	12.0	51.1	16.98	5	13	13.0	54.6	16.69	7	24	14.9	45.7
17.84	2	23	4.2	55.8	17.83	2	38	6.8	58.4	17.87	2	68	12.0	51.7	18.01	2	14	13.1	41.6	17.81	2	24	14.9	46.3
17.27	5	23	4.2	59.0	18.65	2	39	6.9	38.9	18.13	2	68	12.0	51.9	17.39	2	14	13.1	44.0	16.57	7	24	14.9	50.8
17.71	2	24	4.3	37.6	18.41	2	40	7.1	55.3	17.19	5	68	12.1	40.1	18.54	2	14	13.1	53.3	17.13	3	24	15.0	43.9
16.53	7	24	4.3	39.1	16.33	7	41	7.2	39.6	17.21	4	68	12.1	40.9	16.55	7	14	13.2	46.1	17.84	2	25	15.0	47.5
17.93	2	25	4.4	39.1	17.77	2	40	7.2	57.8	17.36	3	68	12.1	41.9	17.02	5	15	13.3	44.8	15.92	7	25	15.1	46.2
18.27	2	25	4.4	39.4	13.16	13	42	7.4	39.0	17.19	5	68	12.1	45.1	16.94	5	15	13.3	54.3	18.58	2	25	15.1	47.8
17.33	4	25	4.4	56.4	14.49	10	42	7.5	38.1	18.29	2	68	12.1	47.5	18.57	2	16	13.4	45.3	18.09	2	26	15.3	45.0
17.57	2	26	4.6	38.2	17.34	4	42	7.5	38.5	16.36	7	68	12.1	47.7	18.13	2	16	13.4	48.3	16.22	7	27	15.4	47.2
14.49	9	27	4.7	58.6	16.39	7	43	7.6	37.2	17.79	2	68	12.1	51.0	18.67	2	16	13.4	48.8	16.71	5	27	15.4	49.0
15.21	9	27	4.8	55.5	15.87	8	44	7.8	38.0	16.97	4	69	12.2	39.7	14.43	9	16	13.4	49.8	16.05	7	27	15.5	50.1
15.96	8	28	4.9	38.5	15.92	8	45	8.0	55.6	17.18	5	69	12.2	40.3	18.07	2	16	13.4	52.0					
18.40	2	28	5.0	36.8	18.51	2	46	8.2	55.2	14.57	8	69	12.2	45.5	15.36	9	16	13.5	49.3					
17.91	2	28	5.0	39.3	17.15	5	46	8.2	56.8	15.79	7	69	12.3	40.6	17.63	2	16	13.5	50.0					
14.18	8	28	5.0	55.4	18.57	2	47	8.4	56.4	18.55	2	69	12.3	42.0	17.20	2	16	13.5	50.8					
16.74	7	29	5.2	36.9	18.82	2	49	8.6	38.4	18.41	2	69	12.3	42.4	16.26	5	17	13.6	41.3					
18.23	2	29	5.2	38.0	16.46	7	50	8.9	37.5	17.47	2	69	12.3	55.8	17.20	5	17	13.6	49.1					
14.85	10	29	5.2	55.9	17.01	5	50	8.9	38.8	15.93	7	70	12.4	44.3	18.18	2	17	13.6	50.6					
18.49	2	30	5.4	36.8	17.13	4	50	8.9	56.6	18.60	2	70	12.4	47.6	18.48	2	17	13.7	46.0					

25 prec. + $109^{\mathrm{s}}.8$, + 0′ 48″

6^{h} Area 26. Center for 1900: 6^{h} 36^{m} + 44° 50′ (15′ × 15′) + 44°

1—10					11—20					21—30					31—40					41—50				
Mag.		α 35^{m}	x	y+50′	Mag.		α 35^{m}	x	y+50′	Mag.		α 35^{m}	x	y+50′	Mag.		α 35^{m}	x	y+50′	Mag.		α 35^{m}	x	y+50′
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
18.78	1	37.5	96.00	43 10	17.92	2	40.1	96.46	44 31	19.42	1	42.6	96.92	50 54	17.87	3	45.8	97.49	46 51	19.03	1	49.1	98.06	42 50
19.03	1	37.7	96.05	48 22	17.27	3	40.2	96.49	41 46	17.51	3	42.9	96.96	41 31	18.53?	1	46.7	97.65	51 21	14.36	12	49.3	98.10	41 37
16.70	8	37.8	96.07	42 10	15.04	12	40.3	96.51	54 32	17.34	3	43.0	96.98	54 14	18.13	3	47.0	97.68	43 30	18.25	3	49.4	98.12	41 25
18.22	3	38.0	96.10	46 23	16.87	7	40.6	96.55	41 54	18.30	2	43.1	97.00	44 28	19.11	1	47.1	97.72	45 38	18.13	3	49.7	98.16	44 38
18.95	1	38.5	96.18	42 44	18.31	3	40.6	96.56	52 24	16.13	9	44.0	97.17	42 11	17.62	3	47.3	97.74	40 53	19.19	1	49.7	98.19	50 27
13.88	16	39.3	96.34	45 43	17.85	3	40.7	96.58	54 43	18.32	2	43.9	97.17	48 11	16.88	1	47.4	97.77	49 31	17.28	3	49.7	98.19	48 51
17.24	3	39.8	96.42	46 16	18.07	3	41.2	96.67	51 59	16.52	9	44.0	97.18	48 57	16.43	9	48.2	97.90	46 21	12.61	15	49.9	98.22	49 31
17.76	3	39.9	96.43	51 35	10.01w	13	41.2	96.67	44 35	17.83	3	44.4	97.23	47 18	19.03	1	48.5	97.96	42 10	19.19	1	50.3	98.29	50 48
13.41	18	39.9	96.43	43 06	18.08	3	41.4	96.70	46 43	14.59	13	44.7	97.28	50 40	15.27	11	48.5	97.97	49 24	11.92w	15	51.8	98.55	45 46
18.23	2	40.0	96.45	44 42	19.42	1	42.0	96.80	49 40	19.19	1	45.7	97.47	49 31	16.62	8	48.6	97.99	43 11	15.66	8	52.6	98.68	51 02

25 prec. + $109^{\mathrm{s}}.6$, − 1′ 19″

Area 26

51—110				111—170				171—230				231—290				291—316			
Mag.	α 35^m	x	$y+50'$	Mag.	α 36^m	x	$y+50'$	Mag.	α 36^m	x	$y+50'$	Mag.	α 36^m	x	$y+50'$	Mag.	α 36^m	x	$y+50'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.63 3	52.7	98.71	48 09	18.13 3	10.6	1.89	46 17	18.34 2	26.7	4.74	45 04	17.42 3	40.7	7.21	50 46	16.64 9	55.8	9.91	44 39
18.04 2	52.9	98.75	42 13	16.81 9	12.1	2.15	53 15	19.03 1	26.7	4.74	54 54	19.03 1	41.3	7.33	53 21	15.45 10	56.2	9.97	52 36
17.51 3	53.1	98.78	54 46	14.13 14	12.2	2.16	47 51	17.71 3	26.7	4.75	44 09	13.07 14	41.5	7.36	46 18	14.73 14	56.5	10.02	53 41
18.95 1	53.6	98.86	40 21	15.79 10	12.3	2.18	50 28	18.70 2	26.9	4.77	48 46	17.79 3	41.6	7.39	47 22	17.70 3	56.6	10.03	52 40
19.28 1	53.6	98.86	48 41	16.66 9	12.5	2.21	54 30	18.79 2	27.3	4.84	49 21	18.44 2	41.6	7.39	44 03	17.62 3	56.8	10.06	52 26
18.07 3	53.6	98.87	52 14	17.62 3	12.4	2.21	43 52	18.06 2	27.5	4.89	52 50	16.64 8	41.9	7.45	41 17	19.11 1	56.9	10.08	49 28
16.89 7	54.8	99.09	43 17	17.16 7	12.6	2.24	48 56	15.83 8	27.8	4.93	54 49	16.74 9	42.1	7.46	53 44	17.94 3	56.8	10.09	43 55
17.18 3	55.8	99.25	40 58	17.27 5	12.8	2.28	41 11	18.22 2	27.8	4.94	53 50	18.03 3	42.2	7.49	48 09	17.06 5	57.3	10.16	54 04
18.68 2	56.0	99.28	46 43	15.92 10	13.0	2.31	51 10	18.58 2	28.0	4.97	42 40	17.05 7	42.2	7.49	47 04	18.31 3	58.0	10.29	52 11
18.26 2	56.0	99.28	45 08	18.28 3	13.1	2.33	52 21	18.13 3	28.7	5.08	45 41	16.71 8	42.8	7.60	40 09	16.74 8	58.9	10.44	49 29
16.86 8	56.1	99.30	54 26	17.75 3	13.4	2.38	41 02	19.19 1	28.9	5.13	53 18	19.03 1	43.0	7.62	53 48	18.17 1	58.9	10.45	53 41
17.43 3	56.2	99.32	45 50	16.23 8	13.4	2.38	41 17	18.39 3	29.1	5.16	47 41	16.34 9	43.1	7.64	46 35	17.29 3	59.0	10.49	43 50
15.22 10	56.7	99.42	50 29	18.30 2	13.8	2.45	53 10	13.33 16	29.3	5.21	40 55	18.47 2	43.3	7.69	51 12	18.17 1	59.3	10.53	40 01
18.22 2	56.9	99.45	49 27	17.50 3	13.9	2.47	51 14	16.96 8	29.8	5.28	54 35	18.36 2	43.5	7.72	49 40	13.27 17	59.5	10.55	49 55
18.44 2	57.2	99.51	54 20	18.43 2	14.0	2.48	53 04	17.92 3	29.7	5.28	43 32	18.87 1	43.6	7.75	43 31	18.01 3	59.6	10.59	40 35
14.75 13	57.4	99.54	41 59	16.72 9	14.0	2.48	52 37	18.20 3	29.8	5.30	43 54	16.73 8	44.3	7.86	41 31	17.25 3	60.5	10.74	52 58
18.21 3	57.5	99.57	53 09	17.33 6	14.2	2.51	50 30	18.39 3	29.8	5.30	41 18	18.35 2	45.6	8.08	51 47	18.31 3	60.9	10.80	48 33
18.47 2	57.6	99.58	49 41	18.30 2	14.2	2.52	47 07	18.22 2	30.9	5.48	48 04	19.19 1	46.0	8.16	48 36	18.34 1	61.0	10.82	52 57
18.36 2	57.9	99.64	45 14	18.34 2	14.4	2.55	49 06	18.01 3	31.2	5.54	44 56	16.38 7	46.3	8.21	46 52	18.34 2	61.3	10.86	51 58
17.92 2	58.6	99.75	49 14	17.86 3	14.5	2.57	53 39	16.63 8	31.4	5.58	40 58	18.87 1	46.5	8.25	49 08	16.22 9	61.4	10.88	53 31
18.09 3	58.9	99.80	53 37	13.66 17	14.6	2.60	43 33	15.20 12	31.4	5.59	40 13	19.19? 1	46.7	8.28	47 38	18.31 3	61.6	10.92	48 16
18.95 1	59.0	99.82	45 45	17.76 3	14.8	2.64	40 26	16.71 8	31.6	5.60	47 36	17.92 3	46.8	8.31	43 20	16.03 9	61.6	10.93	50 29
16.94 7	59.2	99.86	42 49	19.28 1	15.0	2.67	44 55	18.42 2	32.2	5.71	52 07	18.48 2	47.0	8.34	52 34	18.29 3	61.8	10.96	48 56
18.06 3	59.3	99.89	44 28	18.22 3	16.4	2.91	40 03	18.42 2	32.5	5.76	46 13	16.66 9	47.2	8.37	51 32	18.30 3	61.7	10.96	42 57
18.33 2	59.6	99.93	50 16	18.20 2	17.0	3.00	45 14	18.00 2	33.2	5.89	54 37	16.28 9	47.4	8.41	53 32	19.03 1	61.8	10.97	51 55
17.64 3	59.8	99.97	44 00	19.28 1	17.0	3.01	44 47	18.14 3	34.0	6.03	47 32	18.26 2	47.5	8.42	52 30	18.03 3	61.8	10.98	43 30
18.20 3	60.4	0.06	42 39	18.47 2	17.0	3.02	48 48	18.68 2	34.0	6.04	48 24	18.22 3	47.6	8.44	53 47				
17.75 3	60.5	0.08	53 04	18.72 2	17.9	3.19	44 37	18.19 2	34.1	6.05	49 56	13.53 17	47.7	8.46	53 17				
17.17 3	60.8	0.14	43 38	16.29 8	18.1	3.21	48 02	18.09 2	34.5	6.11	47 21	18.40 2	48.0	8.53	40 44				
15.82 10	61.2	0.22	45 47	15.82 9	18.4	3.27	53 47	13.24 15	34.6	6.14	46 56	17.77 3	48.3	8.57	52 16				
18.22 2	61.5	0.26	48 06	17.86w 2	19	3.3	42 54	14.45 12	34.5	6.14	44 40	17.63 3	48.4	8.59	51 27				
16.19 9	62.2	0.39	45 29	16.67 9	18.7	3.33	42 35	16.68 8	34.7	6.17	44 23	16.09 9	48.6	8.62	46 05				
18.00 3	62.3	0.40	43 20	16.76 9	18.8	3.35	42 22	13.44 17	34.9	6.18	51 52	18.95 1	49.3	8.75	54 29				
18.22 2	62.3	0.40	51 31	14.68 14	19.0	3.38	43 15	18.26 2	35.1	6.23	44 54	18.26 2	49.4	8.76	46 37				
15.80 10	62.7	0.49	51 29	10.47w 12	19.3	3.43	49 09	17.48 3	35.2	6.24	47 29	14.51 13	49.4	8.76	47 47				
15.41 11	62.7	0.49	46 54	16.72 8	19.4	3.44	47 30	18.60 2	35.3	6.27	49 32	17.00 7	49.4	8.76	49 24				
18.60 2	63.1	0.55	48 46	18.20 3	19.4	3.45	42 10	15.28 11	35.4	6.28	54 50	18.36 2	49.9	8.85	49 18				
19.03 1	63.2	0.58	42 06	17.68 3	19.6	3.49	41 28	18.87 1	35.7	6.33	48 37	18.17 3	50.0	8.87	54 34				
17.22 7	63.3	0.59	51 13	18.26 2	20.0	3.55	53 22	13.90 16	35.9	6.38	42 49	17.89 3	50.1	8.90	44 58				
19.35 1	63.4	0.61	48 40	17.45 3	20.3	3.61	44 08	16.83 8	36.5	6.47	48 11	17.47 3	50.3	8.91	54 50				
18.30 2	63.7	0.67	48 58	17.95 3	20.5	3.64	45 19	18.04 3	36.7	6.50	48 35	16.81 7	50.2	8.92	40 39				
16.01 9	63.7	0.67	45 05	18.18 3	21.2	3.76	43 24	19.03 1	36.7	6.52	42 34	16.49 9	50.5	8.95	46 12				
17.44 5	63.8	0.69	44 53	18.43 2	21.2	3.77	48 03	18.09 2	36.9	6.54	53 56	19.03 1	50.5	8.96	43 47				
16.30 8	64.3	0.76	46 46	19.11 1	21.9	3.88	42 58	18.78 1	36.9	6.55	44 16	18.95 1	51.1	9.08	41 15				
17.79 3	64.3	0.76	47 32	17.85 3	22.1	3.93	44 04	16.80 8	37.1	6.58	41 11	15.78 10	51.6	9.15	48 29				
18.47 2	64.5	0.80	46 21	15.90 10	22.5	3.99	46 14	13.14 15	37.1	6.58	47 50	17.65 3	51.8	9.19	47 51				
14.99 10	64.6	0.82	47 08	16.89 8	22.9	4.06	44 34	17.98 3	37.2	6.60	53 34	17.46 3	51.8	9.19	46 55				
18.22 3	64.9	0.86	41 41	18.01 3	23.0	4.08	44 25	18.60 2	37.2	6.60	50 39	17.47 3	52.2	9.25	54 02				
17.95 3	65.0	0.88	40 24	19.35 1	23.1	4.10	49 10	13.02 15	37.3	6.62	41 22	16.66 9	52.4	9.28	49 44				
19.35 1	65.8	1.03	48 08	17.63 3	23.4	4.15	42 46	18.44 2	37.6	6.67	45 01	16.47 9	52.4	9.29	54 48				
14.97 11	66.0	1.07	44 39	17.74 3	23.6	4.18	45 26	18.44 1	38.1	6.75	47 14	15.30 11	52.8	9.39	42 00				
15.94 8	66.1	1.09	46 29	16.07 8	23.6	4.18	53 35	18.30 2	38.2	6.77	47 37	16.67 9	53.5	9.48	50 42				
16.87 9	66.3	1.11	47 51	14.77 12	23.8	4.21	48 14	16.75 8	39.1	6.93	54 36	18.11 3	53.8	9.56	43 13				
16.15 9	66.7	1.19	42 02	17.20 6	23.8	4.21	48 10	18.76 2	39.4	6.98	47 25	16.10 9	54.2	9.63	41 35				
18.34 2	66.8	1.20	49 19	16.07 9	23.8	4.22	52 51	18.60 2	39.4	6.99	49 50	15.68 9	54.3	9.65	42 08				
18.22 2	67.4	1.32	53 41	18.80 2	24.0	4.25	46 53	18.09 3	39.7	7.04	54 00	16.39 9	54.5	9.67	51 46				
15.22 11	68.2	1.45	54 18	19.28 1	24.6	4.37	51 31	17.93 3	39.8	7.07	52 27	16.93 7	54.6	9.69	50 45				
19.28 1	69.1	1.61	52 41	16.80 6	24.9	4.41	49 00	14.54 12	40.3	7.16	44 15	15.09 12	54.5	9.69	43 28				
19.11 1	69.2	1.63	42 17	15.96 9	25.3	4.48	54 46	17.81 3	40.3	7.17	44 23	18.25 3	55.0	9.75	45 11				
18.20 2	69.5	1.68	40 40	17.82 3	26.3	4.67	47 07	17.20 7	40.4	7.17	49 10	17.33 5	55.4	9.82	50 15				

25 prec. + $109^s.6$, − 1′ 20″

LIBRARY
UNIVERSITY OF ILLINOIS

1s—60s					61s—120s					121s—180s					181s—204s				
Mag.		α 35ᵐ	x	y+50′	Mag.		α 35ᵐ	x	y+50′ / y−10′	Mag.		α 36ᵐ	x	y+50′	Mag.		α 37ᵐ	x	y+50′
		s	′	′			s	′	′			s	′	′			s	′	′
17.84	2	17	92.3	52.5	17.70	2	54	99.0	38.5	16.84	6	35	6.3	39.4	17.60	2	12	12.8	55.5
16.24	7	17	92.4	49.2	16.54	6	54	99.0	55.2	14.10	14	36	6.4	56.5	17.96	2	13	13.0	46.3
16.55	7	19	92.6	50.4	16.42	7	54	99.0	58.2	17.84	2	37	6.6	39.0	15.62	8	13	13.0	46.8
17.84	2	19	92.7	46.1	15.92	7	59	99.9	38.8	17.24	2	37	6.6	58.5	15.52	8	13	13.0	48.4
13.07	15	19	92.8	46.3	17.74	2	60	0.0	38.4	15.88	7	38	6.8	59.8	15.31	9	13	13.0	50.0
15.12	8	21	93.0	51.0	16.04	7	61	0.2	58.8	16.43	7	39	6.9	39.0	17.96	2	15	13.2	48.6
16.90	4	21	93.1	46.6	17.92	2	62	0.4	57.8	17.88	2	39	6.9	39.5	15.78	7	14	13.2	51.0
17.98	2	22	93.3	48.2	17.80	2	62	0.4	59.3	18.05	2	39	7.0	56.5	17.94	2	15	13.2	51.8
17.76	2	24	93.6	49.4	17.84	2	63	0.6	39.0	15.27	10	40	7.0	56.6	16.54	7	15	13.4	44.3
17.98	2	24	93.6	50.7	14.30	12	66	1.0	56.6	17.20	2	40	7.0	58.9	15.03	10	16	13.4	46.0
13.89	14	24	93.6	51.0	15.19	8	66	1.0	0.3	17.59	2	41	7.2	38.6	16.42	7	16	13.4	46.1
17.80	2	24	93.7	52.3	18.11	2	66	1.1	56.6	13.92	13	41	7.2	58.9	16.83	6	16	13.4	47.2
17.80	2	24	93.7	54.9	16.11	6	67	1.2	55.9	18.18	2	41	7.3	56.1	15.77	7	15	13.4	53.2
13.03	13	25	93.8	44.4	16.56	6	69	1.6	38.7	14.62	12	46	8.2	55.6	17.88	2	17	13.7	53.2
17.82	2	25	93.8	47.0	16.82	6	71	1.9	58.2	17.98	2	46	8.2	57.9	17.86	2	18	13.8	45.4
15.63	7	26	93.9	43.3	16.57	7	71	2.0	56.8	17.90	2	46	8.2	58.3	17.90	2	18	13.8	48.8
17.90	2	26	93.9	54.6	17.74	2	71	2.0	59.4	16.68	7	47	8.2	58.5	17.86	2	18	13.8	50.8
16.65	7	28	94.3	44.5	16.52	7	72	2.1	38.4	17.84	2	47	8.4	58.4	17.82	2	20	14.1	53.0
16.92	4	28	94.3	46.7	18.02	2	72	2.2	56.4	16.59	7	49	8.7	55.9	14.91	9	21	14.3	52.7
17.78	2	29	94.4	49.2	17.60	2	72	2.2	59.8	17.96	2	50	8.8	57.6	16.45	7	22	14.5	50.7
16.51	7	29	94.5	42.0	17.96	2	73	2.3	57.4	16.57	7	51	9.0	39.4	16.60	7	22	14.6	48.5
18.06	2	30	94.6	46.9	16.38	7	74	2.4	38.5	17.38	2	51	9.0	58.8	17.71	2	23	14.7	48.6
16.63	7	30	94.6	51.0	15.39	9	74	2.4	55.2	16.69	7	53	9.3	55.9	17.84	2	23	14.8	50.5
16.64	6	31	94.8	42.6	14.25	12	74	2.4	0.0	17.84	2	53	9.4	58.8	16.51	7	24	14.9	50.0
16.62	7	31	94.9	52.4	15.12	10	76	2.8	39.3	12.67	13	54	9.6	57.2					
16.65	6	32	95.0	44.2	17.32	2	76	2.9	38.8	17.96	2	55	9.7	57.1					
18.06	2	32	95.0	45.8	18.24	2	77	3.0	55.9	16.69	7	56	10.0	56.2					
14.58	11	32	95.0	49.8	14.90	12	81	3.7	57.5	13.39	16	58	10.3	55.8					
15.83	5	32	95.0	53.8	15.43	8	81	3.8	38.4	16.16	7	59	10.4	58.3					
13.36	16	32	95.0	54.3	17.88	2	81	3.8	58.0	13.93	15	59	10.5	56.9					
16.76	6	32	95.0	54.9	16.56	7	83	4.1	38.5	17.28	2	60	10.6	57.2					
16.55	7	32	95.1	41.8	17.74	2	83	4.1	39.0	18.04	2	62	11.0	44.6					
17.68	2	32	95.1	45.9	16.26	7	83	4.2	58.2	18.04	2	63	11.1	44.7					
17.98	2	32	95.1	51.9	17.66	2	84	4.3	57.8	16.56	7	63	11.2	48.7					
17.98	2	33	95.2	43.4	11.71	14	85	4.4	0.0	15.64	8	63	11.2	48.8					
18.15	2	33	95.2	47.4	17.28	2	85	4.5	55.2	13.68	15	63	11.2	49.2					
18.15	2	33	95.2	49.4	16.29	7	85	4.5	58.5	18.06	2	64	11.3	53.5					
18.15	2	33	95.2	49.8	17.51	2	86	4.6	38.0	14.98	10	64	11.3	53.6					
11.73	14	33	95.2	57.2	17.58	2	86	4.6	39.4	15.31	8	64	11.4	56.1					
18.00	2	34	95.4	52.8	16.46	7	86	4.6	55.3	17.82	2	64	11.4	57.2					
17.50	2	36	95.8	48.0	16.84	6	86	4.6	58.6	18.00	2	65	11.5	45.1					
16.79	7	36	95.8	48.3	17.00	6	87	4.8	56.9	17.82	2	65	11.5	49.7					
13.65	16	37	95.9	47.7	14.62	11	88	5.0	0.2	18.12	2	65	11.6	48.1					
18.24	2	37	95.9	51.1	15.22	9	89	5.1	39.3	16.59	7	66	11.6	55.9					
17.72	2	39	96.3	57.5	16.57	7	89	5.2	37.9	17.90	2	66	11.6	56.1					
16.66	7	44	97.2	55.9	17.98	2	89	5.2	59.1	17.40	2	66	11.7	50.8					
16.48	7	44	97.2	58.0	15.58	9	90	5.4	57.2	14.91	10	67	11.8	52.3					
17.64	2	45	97.4	39.8	14.52	12	91	5.4	59.3	17.70	2	66	11.8	55.2					
17.82	2	47	97.6	39.4	15.16	9	91	5.5	38.5	17.86	2	68	12.0	47.2					
18.15	2	48	97.9	55.3	17.57	2	91	5.5	39.2	18.06	2	68	12.0	50.9					
9.87	11	49	98.1	56.4	16.18	7	91	5.5	58.0	18.06	2	68	12.0	52.2					
17.92	2	49	98.1	57.6	13.68	14	91	5.6	38.7	17.82	2	68	12.1	43.3					
15.98	7	51	98.4	58.6	15.35	9	91	5.6	55.6	15.73	7	68	12.1	54.3					
16.70	7	52	98.6	58.4	16.75	7	93	5.8	57.4	18.06	2	69	12.2	47.2					
14.46	12	53	98.7	39.2	16.79	5	93	5.9	58.3	16.75	5	69	12.3	42.3					
16.70	7	53	98.7	55.9	15.54	7	94	6.0	38.0	17.58	2	70	12.4	49.3					
17.82	2	53	98.8	40.0	16.73	7	94	6.0	55.4	17.28	2	71	12.6	47.3					
18.11	2	54	98.8	55.4	13.52	16	94	6.0	55.6	15.43	7	71	12.6	50.0					
16.62	7	53	98.8	56.7	15.91	7	94	6.0	56.0	17.88	2	72	12.8	43.7					
18.15	2	54	98.9	56.0	15.82	6	94	6.0	58.0	17.72	2	72	12.8	44.1					

25 prec. + $109^{\mathrm{s}}.6$, − 1′ 19″

7^{h} Area 27. Center for 1900: 7^{h} 38^{m} + 44° 50′ (15′ × 15′) + 44°

1—30					31—60					61—90					91—120					121—145				
Mag.		α 37^{m}	x	$y+50'$	Mag.		α 37^{m}	x	$y+50'$	Mag.		α 38^{m}	x	$y+50'$	Mag.		α 38^{m}	x	$y+50'$	Mag.		α 38^{m}	x	$y+50'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
14.44	12	33.4	95.29	43 06	18.33	3	50.5	98.31	50 38	17.38	4	3.7	0.67	52 36	18.90	1	26.1	4.63	44 10	18.80	2	40.4	7.17	53 51
14.49	11	34.3	95.43	40 27	17.06	6	50.5	98.32	45 39	18.78	3	3.8	0.69	50 40	11.21	10	26.4	4.68	52 04	12.39	14	41.0	7.27	49 52
18.19	3	35.5	95.66	49 42	13.59	16	51.1	98.43	49 56	17.29	5	6.3	1.11	48 23	18.75	3	26.7	4.73	53 10	16.86	6	41.9	7.45	42 33
15.16	12	35.7	95.68	42 14	16.03	10	51.2	98.44	53 56	16.84	9	6.8	1.20	43 57	18.51	3	27.1	4.81	51 31	15.59	10	42.0	7.47	42 19
18.73	1	36.7	95.86	51 09	16.53	7	51.5	98.48	42 49	16.48	9	6.9	1.22	46 51	11.73	14	27.8	4.93	46 58	18.14	2	43.6	7.74	48 34
16.17	10	37.1	95.95	46 45	17.86	3	52.5	98.66	51 58	18.32	2	8.4	1.50	44 24	16.87	8	28.5	5.06	44 10	16.47	8	43.8	7.79	40 04
17.95	3	37.2	95.95	41 02	16.82	4	54.1	98.95	41 05	16.53	10	8.9	1.58	50 51	15.85	10	28.9	5.14	43 33	17.20	3	44.8	7.94	52 21
14.81	12	37.5	96.01	44 12	18.72	3	54.4	99.01	41 35	16.97	4	11.4	2.03	54 29	18.94	3	29.1	5.16	42 23	15.31	11	45.3	8.03	50 18
18.35	3	38.6	96.20	40 27	18.36	3	54.6	99.05	54 23	14.62	11	11.5	2.05	40 14	13.62	15	29.1	5.16	44 04	16.87	8	46.5	8.25	45 19
17.71	3	40.4	96.53	51 18	17.19	3	54.8	99.08	44 42	18.90	1	11.7	2.08	43 48	18.03	2	29.3	5.21	42 15	18.73	1	46.7	8.29	53 22
17.32	3	40.6	96.57	54 58	16.66	9	54.8	99.09	53 52	17.15	4	11.9	2.12	54 45	18.96	3	29.4	5.22	50 10	17.67	3	47.7	8.47	52 58
11.54	11	40.9	96.60	43 23	18.50	3	54.9	99.10	46 52	10.40w	8	12.5	2.22	48 55	17.83	3	29.7	5.29	40 48	18.49	3	48.0	8.51	45 26
17.00	6	41.7	96.75	42 45	18.18	2	55.8	99.25	42 04	18.15	3	12.7	2.25	52 26	15.74	10	29.9	5.30	51 48	17.94	3	48.3	8.57	52 52
16.72	8	41.8	96.76	40 24	17.70	3	56.7	99.41	53 28	14.61	14	13.9	2.47	47 01	14.05	13	31.1	5.53	40 52	18.53	3	48.2	8.57	44 41
15.76	11	42.2	96.85	52 44	17.16	8	56.9	99.45	46 35	17.56	3	15.0	2.67	43 58	15.83	10	31.8	5.65	40 55	17.47	3	48.8	8.67	42 48
12.24	14	43.5	97.06	49 42	18.82	1	57.1	99.48	54 28	18.86	2	15.6	2.77	48 30	15.14	12	32.3	5.73	41 57	18.82	1	49.5	8.79	46 33
18.65	1	43.7	97.10	40 06	14.63	12	57.6	99.59	54 51	19.07	1	16.8	2.98	50 47	12.59	15	32.5	5.77	42 54	14.88	11	50.9	9.03	46 48
17.66	3	43.6	97.10	50 33	16.06	8	59.2	99.86	41 41	14.29	14	17.4	3.08	47 44	16.17	10	33.1	5.87	50 17	18.18	3	51.5	9.13	50 59
18.20	3	43.6	97.11	45 42	18.75	3	59.7	99.95	52 27	14.45	11	17.8	3.17	54 54	17.64	3	33.1	5.87	50 09	18.74	2	52.6	9.32	52 45
17.33	4	43.8	97.12	44 43	18.57	2	60.4	0.06	47 01	16.15	10	18.8	3.34	41 47	15.34	11	34.1	6.05	54 27	17.32	3	52.9	9.38	47 58
15.58	11	44.0	97.18	52 39	16.90	6	60.5	0.08	52 25	18.99	3	19.4	3.45	52 51	17.28	5	35.0	6.20	46 00	17.95	3	52.8	9.39	40 38
17.47	3	45.5	97.43	41 43	18.22	3	60.6	0.11	50 28	17.59	3	20.1	3.56	52 39	17.32	3	35.1	6.22	50 31	18.72	3	53.2	9.44	53 23
18.01	2	46.0	97.52	43 17	17.34	5	61.2	0.21	52 41	18.40	3	20.4	3.62	46 10	16.66	8	35.2	6.25	45 39	18.19	3	54.2	9.61	51 14
17.14	3	46.6	97.61	40 56	18.65	1	61.7	0.30	45 47	16.98	4	20.9	3.70	52 16	16.00	10	35.2	6.25	45 08	16.68	6	54.1	9.62	43 15
16.56	9	46.9	97.68	51 49	17.10	6	62.1	0.37	43 03	16.43	9	22.0	3.90	51 12	14.42	13	35.2	6.25	43 57	16.93	4	54.4	9.65	45 32
18.06	3	46.9	97.69	51 01	17.23	6	62.2	0.38	46 21	17.78	3	22.0	3.90	47 58	19.04	3	37.9	6.72	49 36					
17.30	6	48.4	97.95	51 31	17.50	3	62.3	0.41	54 53	18.77	3	23.5	4.17	41 38	16.01	10	39.1	6.95	44 04					
18.25	3	48.5	97.96	43 28	15.93	10	62.7	0.48	52 02	17.88	3	23.5	4.17	44 58	14.82	10	39.3	6.97	45 31					
15.96	10	48.9	98.04	54 30	18.90	2	63.0	0.54	43 40	18.85	3	23.5	4.19	41 35	17.67	3	39.6	7.03	44 03					
15.43	11	50.4	98.30	45 50	17.95	3	63.3	0.59	50 12	17.25	4	25.2	4.47	47 51	18.94	2	40.1	7.13	43 08					

25 prec. + $106^{\mathrm{s}}.9$, − 3′ 28″

7^{h} Area 27. Supplementary Stars + 44°, + 45°

1s—20s					21s—40s					41s—60s					61s—80s					81s—98s				
Mag.		α 37^{m}	x	$y+50'$	Mag.		α 37^{m}	x	$y+50'$	Mag.		α 37^{m}	x	$\frac{y+50'}{y-10'}$	Mag.		α 38^{m}	x	$y+50'$	Mag.		α 38^{m}	x	$y+50'$
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
15.00	10	9	91.0	48.6	18.05	2	27	94.2	51.9	17.93	2	44	97.2	57.3	18.05	2	17	3.1	39.4	16.37	8	58	10.2	52.0
17.27	2	15	92.0	44.9	17.90	2	27	94.2	55.5	14.12	12	45	97.4	55.8	13.01	15	20	3.5	57.3	14.21	12	58	10.3	45.1
11.51	10	15	92.0	49.6	18.96	2	28	94.3	44.0	18.49	2	45	97.4	56.7	16.55	7	20	3.6	37.9	17.93	2	60	10.6	52.4
16.44	6	16	92.2	48.3	17.43	2	30	94.6	52.7	14.88	10	47	97.7	56.9	17.12	2	21	3.8	55.4	16.95	6	61	10.8	54.0
16.63	5	16	92.2	49.9	16.84	5	31	94.8	44.6	17.92	2	50	98.2	59.6	18.52	2	21	3.8	59.2	17.84	2	62	11.0	43.2
18.53	2	20	92.9	45.3	15.26	10	30	94.8	51.7	16.76	7	50	98.3	56.9	16.83	5	23	4.2	58.6	15.54	9	62	11.0	55.0
16.30	8	21	93.0	44.9	18.26	2	30	94.8	52.2	14.53	10	51	98.4	55.6	16.25	5	28	5.0	38.4	16.65	7	63	11.1	46.4
14.82	8	21	93.2	47.1	17.21	3	31	94.9	48.2	14.10	12	52	98.6	59.6	18.30	2	30	5.4	39.4	17.69	2	64	11.3	50.2
15.87	8	22	93.2	49.7	14.97	10	33	95.2	55.2	16.12	8	53	98.8	59.4	15.88	8	31	5.5	38.3	15.97	8	64	11.4	48.7
15.12	10	22	93.3	49.9	16.91	5	34	95.3	39.8	18.70	2	56	99.3	55.1	18.07	2	31	5.6	38.2	15.54	8	65	11.5	49.4
15.25	10	23	93.4	51.3	18.41	2	34	95.4	56.7	16.71	7	56	99.3	58.7	16.64	7	32	5.8	38.5	15.28	9	67	11.9	52.5
15.41	9	23	93.5	50.4	17.34	2	39	96.2	39.6	18.79	2	57	99.5	57.9	17.41	2	36	6.4	56.5	18.41	2	67	11.9	54.7
17.11	4	25	93.8	43.4	18.33	2	41	96.6	56.4	18.33	2	58	99.6	57.6	17.08	4	38	6.8	58.8	18.49	2	68	12.0	43.4
12.33	13	25	93.8	46.3	16.89	7	41	96.7	39.5	18.15	2	63	0.6	57.9	18.11	2	45	7.9	57.6	14.47	10	68	12.1	50.4
17.16	2	25	93.8	52.6	15.44	8	41	96.7	56.4	17.80	2	67	1.3	56.2	17.64	2	46	8.1	58.7	17.75	2	68	12.1	52.6
16.12	8	26	93.9	54.7	17.29	2	42	96.8	58.6	18.81	2	70	1.8	56.2	16.05	8	46	8.2	55.4	17.29	2	71	12.6	51.9
17.11	2	26	93.9	56.5	17.07	2	43	97.0	56.8	16.25	7	70	1.8	0.3	16.70	7	51	9.1	57.6	16.35	8	73	13.0	48.1
17.72	2	26	94.0	46.5	13.32	15	44	97.1	59.3	17.29	2	71	2.0	0.0	16.67	7	53	9.4	56.5	14.46	11	77	13.6	48.6
13.74	15	26	94.0	56.9	16.34	7	44	97.2	55.0	18.14	2	72	2.1	37.6	17.42	2	57	10.2	47.2					
17.26	2	27	94.1	47.2	17.12	2	44	97.2	56.9	17.36	2	77	3.0	59.5	17.01	3	58	10.2	47.4					

25 prec. + $106^{\mathrm{s}}.9$, − 3′ 28″

Area 28. Center for 1900: $8^{h}\,40^{m} + 45° 0'$ (15′ × 15′)

1—20				21—40				41—60				61—79			
Mag.	α 39^{m}	x	$y+60'$ y	Mag.	α 39^{m}	x	$y+60'$ y	Mag.	α 39^{m}	x	$y+60'$ y	Mag.	α 40^{m}	x	$y+60'$ y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.48 3	9.4	91.03	51 22	14.48 13	27.1	94.19	4 04	16.57 11	47.9	97.85	51 18	16.79 5	14.2	2.51	57 16
18.24 3	9.5	91.06	57 13	13.04 18	27.2	94.20	58 59	12.96 17	48.3	97.92	54 55	16.62 8	17.1	3.02	59 50
18.00 3	10.6	91.27	57 09	16.60 8	28.0	94.32	53 14	**10.53w13**	**50.4**	**98.30**	**56 35**	12.74 17	17.3	3.07	54 56
12.77 17	10.6	91.27	1 23	16.14 9	28.8	94.48	4 44	13.22 18	50.9	98.38	51 32	16.51 12	17.3	3.07	56 17
17.37 3	13.0	91.66	51 00	16.70 8	31.8	95.01	55 38	18.15 1	52.0	98.58	3 51	18.53 3	17.9	3.16	55 51
17.76 3	14.9	92.00	52 31	17.82 3	32.6	95.15	52 59	18.24 3	52.1	98.60	59 09	16.65 11	20.1	3.57	54 27
14.94 14	15.7	92.15	51 08	18.23 3	33.5	95.31	0 15	15.74 12	55.3	99.17	4 37	18.44 3	21.7	3.85	57 03
16.65 7	16.1	92.21	50 44	10.78 15	34.5	95.48	51 05	16.73 8	56.6	99.40	59 28	15.72 12	23.1	4.08	0 08
15.65 8	15.9	92.21	1 22	16.91 11	36.2	95.78	56 22	18.14 3	57.9	99.63	55 36	11.59w14	25.6	4.54	56 35
18.32 3	16.5	92.29	53 20	16.81 11	36.5	95.85	56 16	17.76 3	59.8	99.96	2 20	18.15 1	25.9	4.58	1 20
17.13 3	16.8	92.34	52 39	18.62 2	37.0	95.92	52 11	18.77 1	64.5	0.80	53 09	14.78 14	25.9	4.60	50 30
18.59 2	17.2	92.43	58 26	14.61 13	38.5	96.20	2 56	17.89 3	65.4	0.96	51 20	17.21 3	26.4	4.67	3 25
14.13 16	17.4	92.45	51 37	18.30 3	38.9	96.26	56 55	18.70 1	66.8	1.20	50 23	15.08 13	27.4	4.86	52 28
16.55 11	18.4	92.64	58 56	16.07 12	40.1	96.48	2 11	14.00 16	66.8	1.21	57 32	17.04 3	30.0	5.30	4 07
15.97 12	21.2	93.14	58 43	17.76 3	41.7	96.77	58 38	16.87 5	67.3	1.28	2 20	15.18 14	30.2	5.35	57 32
16.65 8	22.2	93.33	3 14	18.31 1	42.8	96.97	59 57	18.85 1	69.2	1.62	0 44	16.96 4	31.3	5.54	55 18
18.48 2	24.8	93.77	59 51	16.48 11	43.2	97.01	52 35	10.98 14	70.4	1.83	3 40	17.84d 1	32.7	5.79	1 30
18.35 3	25.7	93.92	50 31	17.76 3	44.3	97.23	59 58	18.18 3	71.6	2.05	59 58	17.68x 3	33.0	5.85	59 34
17.98 3	26.0	94.00	4 51	14.56 14	44.7	97.30	56 25	15.99 12	72.7	2.25	3 54	18.23 1	33.1	5.87	52 17
16.72 7	27.0	94.16	2 00	16.99 4	47.9	97.85	52 31	14.96 14	73.9	2.46	56 54				

25 prec. + $102^{\text{s}}.4$, − 5′ 22″

8h

Area 28. Supplementary Stars

+ 44°, + 45°

1s—30s				31s—60s				61s—68s			
Mag.	α 38^{m}	x	$y+60'$ y	Mag.	α 39^{m}	x	$y+60'$ y	Mag.	α 40^{m}	x	$y+60'$ y
	s	′	′		s	′	′		s	′	′
17.94 2	54	88.3	52.4	17.79 2	58	99.6	47.6	17.82 2	41	7.2	51.9
10.80 13	54	88.3	56.2	17.58 2	58	99.6	5.1	17.85 2	40	7.2	57.5
18.05 2	58	89.1	54.0	14.56 11	58	99.6	5.4	16.27 7	41	7.2	2.8
17.94 2	59	89.2	1.2	17.68 2	58	99.6	7.8	14.54 12	41	7.3	53.4
17.75 2	60	89.4	58.0	17.58 2	61	0.1	7.3	17.25 2	44	7.8	59.9
18.13 2	60	89.4	1.0	17.97 2	61	0.2	46.2	18.13 2	45	8.0	54.7
17.93 2	61	89.6	56.5	17.72 2	63	0.6	48.7	17.13 2	47	8.3	56.7
17.57 2	62	89.7	54.9	17.51 2	66	1.0	48.6	15.51 10	50	8.8	59.2
16.82 3	62	89.7	1.9	17.38 2	65	1.0	5.3				
17.49 2	64	90.1	51.6	17.18 2	66	1.0	5.6				
18.03 2	64	90.1	3.4	15.99 10	70	1.8	50.0				
17.61 2	67	90.6	53.7	18.12 2	71	1.9	49.3				
18.15 2	67	90.6	54.1	17.91 2	81	3.7	5.5				
15.10 10	68	90.8	3.8	17.39 2	87	4.8	48.0				
18.10 2	72	91.6	5.4	17.77 2	87	4.8	48.4				
17.21 2	79	92.8	5.6	17.61 2	88	5.0	49.2				
16.24 10	84	93.7	46.7	10.21 13	88	5.0	6.0				
17.11 2	91	94.8	48.6	16.72 3	91	5.5	47.8				
17.54 2	92	95.0	45.8	18.31 2	95	6.2	55.4				
12.00 12	92	95.1	6.9	12.95 16	95	6.2	57.8				
16.33 10	94	95.3	47.6	17.26 2	95	6.2	4.6				
17.82 2	95	95.6	5.8	17.14 2	96	6.3	5.0				
14.85 11	96	95.7	6.2	15.82 10	97	6.5	51.7				
17.61 2	100	96.5	7.0	18.26 2	97	6.6	56.1				
13.71 14	104	97.2	49.3	10.43 11	98	6.7	52.3				
15.69 10	107	97.6	46.6	14.86 12	98	6.7	2.7				
15.39 10	113	98.8	6.0	16.31 10	99	6.9	56.2				
15.57 10	116	99.3	46.4	16.78 3	99	6.9	1.0				
17.19 2	117	99.4	5.2	18.10 2	99	7.0	51.4				
17.87 2	118	99.6	47.4	14.12 13	100	7.1	55.6				

25 prec. + $102^{\text{s}}.4$, − 5′ 22″

9^h

Area 29. Center for 1900: $9^h\ 39^m + 44° 50'$ (20′ × 20′)

+ 44°, + 45°

1—30				31—60				61—86				1s—12s			
Mag.	α 37^m	x	$y+50'$	Mag.	α 38^m	x	$y+50'$	Mag.	α 38^m	x	$y+50'$	Mag.	α 37^m	x	$y+50'$ $y-10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
17.77 1	35.7	85.03	40 55	11.24w14	13.0	91.66	50 45	17.83 3	54.2	98.96	53 06	13.03 16	34	84.8	52.3
13.08 17	36.5	85.23	56 11	17.70 1	15.9	92.19	45 34	17.58 3	54.6	99.04	52 49	17.71 2	56	88.7	2.2
17.70? 1	41.8	86.11	44 31	10.08w12	16.7	92.33	53 06	17.70d 1	55.0	99.11	57 03	16.29 5	80	92.8	1.4
18.02 2	42.8	86.32	53 39	15.20 12	17.6	92.46	43 00	17.03 3	55.6	99.22	59 21	17.01 2	80	93.0	1.4
17.22? 1	43.6	86.43	41 32	16.32 6	19.6	92.83	42 44	15.80 8	58.2	99.68	54 09	16.52 3	81	93.1	1.6
17.49? 1	46.1	86.88	42 40	15.27 11	20.1	92.92	47 03	16.17 8	59.6	99.93	51 27	17.79 2	85	93.8	1.2
15.83 9	47.9	87.22	45 41	16.18 7	20.7	93.02	44 23	16.28 8	61.3	0.23	47 11	14.56 10	102	96.9	2.2
15.78 2	49.8	87.54	40 36	16.64 4	20.6	93.02	48 44	16.26 8	61.5	0.26	54 44	15.11 9	105	97.4	0.4
15.09 11	50.0	87.59	48 48	17.99 3	22.0	93.27	46 13	14.15 12	61.7	0.30	54 11	14.99 10	105	97.4	3.2
17.32 3	50.5	87.69	45 56	16.32 6	22.5	93.35	54 54	14.72 12	62.1	0.37	49 17	17.05 2	115	99.1	2.2
14.66 12	51.3	87.85	55 13	8.78w 7	30.9	94.85	52 40	15.76 9	64.9	0.86	53 16	17.91 2	120	0.0	1.8
17.66 2	52.4	88.04	59 00	18.18 1	31.2	94.90	49 37	16.35 6	68.5	1.51	55 31	17.06 2	149	5.1	51.3
14.91 12	54.4	88.39	58 48	17.49 3	31.5	94.97	56 04	12.55 16	68.6	1.52	46 03				
16.35 8	56.7	88.79	53 25	16.63 8	32.6	95.14	48 50	17.47 3	71.7	2.09	45 17				
17.97 1	56.9	88.82	45 22	18.11 1	34.4	95.47	46 12	10.76w12	72.4	2.20	52 10				
15.97 9	57.6	88.94	45 14	16.22 9	35.5	95.67	48 28	13.81 13	72.6	2.24	44 43				
16.70 6	58.5	89.10	53 08	16.86 5	37.9	96.08	50 20	17.36 1	72.6	2.24	41 16				
17.40 3	61.0	89.55	52 31	16.26 8	41.8	96.78	59 36	12.37 17	75.3	2.71	51 59				
17.55w 2	61	89.6	56 30	15.80 8	43.4	97.06	55 54	11.15h 1	75.8	2.81	43 59				
11.16w14	61.8	89.70	56 54	15.82 9	44.6	97.27	46 21	14.77 12	77.3	3.06	51 31				
17.94 2	62.1	89.71	42 48	17.84 3	46.3	97.59	59 33	17.45 3	77.8	3.16	51 53				
14.77 12	63.2	89.93	51 52	17.98 3	47.4	97.77	49 08	16.79 4	78.0	3.20	51 23				
16.53 6	63.2	89.95	55 07	17.70d 1	47.8	97.84	49 22	17.77 1	82.3	3.97	40 12				
17.63d 1	63.9	90.05	53 14	15.29 11	49.7	98.19	58 07	15.08 1	83.5	4.16	43 56				
16.31 8	64.1	90.11	57 36	18.25 1	49.9	98.22	53 36	17.77 1	83.9	4.26	41 41				
18.11 1	65.1	90.28	58 02	17.56 1	50.9	98.38	40 25	17.02 1	87.2	4.82	45 53				
15.12 12	65.9	90.38	44 22	15.28 9	51.4	98.48	58 11								
17.36d 1	66.6	90.54	48 20	17.66 3	52.0	98.58	48 21								
18.18 1	69.8	91.12	56 52	18.11 1	53.1	98.79	55 05								
14.19 1	72.5	91.56	40 41	15.33 10	53.8	98.90	42 07								

25 prec. + $96^s.1$, − 6′ 49″

10^h

Area 30. Center for 1900: $10^h\ 37^m + 45° 10'$ (20′ × 20′)

+ 44°, + 45°

1—20				21—40				41—60				61—65				1s—6s			
Mag.	α 36^m	x	$y+10'$	Mag.	α 37^m	x	$y+10'$	Mag.	α 37^m	x	$y+10'$	Mag.	α 38^m	x	$y+10'$	Mag.	α 36^m	x	$y+70'$ $y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
17.95 1	26.3	94.05	0 38	17.86 3	10.8	1.91	2 48	12.51w10	43.2	7.62	6 37	18.20 1	14.2	13.09	8 32	17.49 2	18	92.6	11.9
16.03 1	26.3	94.05	0 14	16.94 5	11.2	1.98	2 27	17.01 5	45.1	7.93	16 05	17.88 2	14.8	13.17	12 43	11.58 14	22	93.4	8.5
14.95 10	26.7	94.11	4 30	16.56 4	14.2	2.50	4 15	16.83 4	45.9	8.12	3 14	15.04 11	16.0	13.38	12 06	16.50 5	23	93.6	14.4
16.58 6	28.9	94.50	3 08	16.00 7	16.0	2.81	12 36	18.08 2	50.7	8.94	5 56	16.62 6	16.3	13.44	11 53	17.37 2	80	3.5	58.8
17.09 1	29.5	94.61	1 16	17.73 3	16.7	2.95	1 50	17.39 3	52.3	9.22	8 51	9.94w11	19.2	13.94	12 16	16.11 5	89	5.1	58.6
17.58 1	29.5	94.65	16 58	16.78 6	19.4	3.42	9 15	17.90 2	52.2	9.23	4 21					15.25 9	100	7.0	59.2
15.21 9	30.4	94.78	12 45	17.76 3	20.8	3.68	2 39	15.68 7	53.6	9.42	18 36								
17.55 3	34.4	95.50	15 10	11.29w 3	20.9	3.68	9 08	13.80 12	55.1	9.71	6 49								
16.23 6	37.4	96.00	2 10	10.99w 4	21	3.7	9 06	17.57 3	59.0	10.40	8 25								
15 08 9	39.8	96.45	13 49	16.80 4	21.6	3.81	6 16	18.26 1	59.3	10.46	7 56								
17.90 2	46.9	97.70	16 31	16.40 6	23.7	4.17	11 18	17.94 2	59.6	10.50	14 53								
13.20w13	51.2	98.45	11 19	17.39 3	25.6	4.53	0 26	16.90 1	60.2	10.59	19 06								
17.64 2	53.7	98.88	2 26	15.20 11	26.2	4.61	11 02	16.49 6	60.7	10.66	18 06								
14.97 11	60.2	0.03	1 31	17.92 2	27.8	4.88	18 13	11.26w15	62.2	10.96	10 00								
14.57 12	60.6	0.11	7 42	14.18 11	29.9	5.28	3 53	17.55 3	67.0	11.83	1 58								
14.26 12	61.5	0.27	14 37	17.63 3	32.8	5.77	15 48	11.58h 1	68.6	12.12	1 02								
17.65 3	63.9	0.68	19 31	14.10 10	33.3	5.86	8 24	17.80 2	70.1	12.37	5 10								
15.65 8	65.2	0.92	14 00	17.01 5	37.6	6.62	13 28	17.94 2	71.4	12.57	12 18								
15.47 7	65.7	1.00	18 26	16.26 7	38.6	6.80	11 45	16.01 6	71.5	12.59	14 31								
14.48 12	69.6	1.69	11 28	15.76 6	41.4	7.28	16 06	15.78 7	72.1	12.74	3 05								

25 prec. + $88^s.6$, − 7′ 49″

Area 31. Center for 1900: $11^{h}\ 37^{m} + 44°\ 40'$ $(20' \times 20')$

1—20				21—40				41—60				61—80				1s—5s			
Mag.	α 35^{m}	x	$y+40'$	Mag.	α 36^{m}	x	$y+40'$	Mag.	α 36^{m}	x	$y+40'$	Mag.	α 37^{m}	x	$y+40'$	Mag.	α 37^{m}	x	$y+40'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
16.47 6	58.4	89.07	42 53	16.22 6	26.4	94.04	46 01	15.62 7	51.6	98.51	48 24	17.48 3	22.0	3.90	44 59	16.73 3	1	0.2	52.3
7.77h 1	61.2	89.51	33 43	18.00 2	26.8	94.10	37 40	17.18 4	51.9	98.57	44 21	15.10 10	25.5	4.54	43 46	14.00 10	1	0.2	52.4
17.10 3	61.5	89.58	37 51	17.82 2	27.3	94.17	33 54	9.49w 10	54.4	99.00	41 50	17.14 3	25.8	4.58	49 03	15.83 5	5	0.9	50.6
13.16 15	63.9	90.01	38 38	17.91 2	27.8	94.29	47 32	17.20 3	56.2	99.33	38 26	18.24 2	26.4	4.68	44 30	17.09 2	17	3.0	50.2
17.34 3	65.9	90.38	37 15	16.40 6	29.5	94.60	48 02	11.16 16	58.9	99.80	43 35	18.39 1	26.5	4.70	43 36	15.99 5	22	3.9	50.3
15.14 9	67.2	90.59	34 41	18.31 1	31.2	94.90	49 07	15.15 10	60.7	0.13	38 05	17.24 3	28.5	5.05	47 30				
17.56 1	68.3	90.79	31 00	10.88w 15	32.7	95.16	45 40	17.40 3	63.2	0.57	35 46	15.46 7	30.5	5.43	32 31				
17.79 1	68.9	90.90	32 09	16.95 4	33.6	95.30	31 21	16.52 4	64.6	0.82	32 25	16.00 7	33.7	5.99	44 18				
16.22 7	69.3	91.00	44 23	17.72 3	34.1	95.40	45 45	16.73 4	66.4	1.14	32 46	18.09 1	34.6	6.16	30 54				
16.82 4	70.2	91.16	49 56	18.14 2	34.4	95.47	48 49	14.29 12	66.4	1.14	43 11	15.14 10	35.1	6.23	44 47				
17.56 1	72.7	91.57	32 39	16.70 4	37.9	96.07	31 52	17.91 2	72.1	2.15	47 26	17.71 1	36.9	6.59	31 41				
17.37 3	74.4	91.87	33 54	17.56 2	38.1	96.11	37 35	16.92 4	74.0	2.48	40 58	15.22 9	37.4	6.64	43 37				
14.51 2	74.8	91.95	32 21	16.73 4	39.2	96.30	31 04	15.73 7	74.2	2.53	36 30	16.81 4	37.6	6.70	33 59				
17.41 1	79.7	92.81	30 00	16.83 4	40.4	96.52	40 22	17.40 3	74.6	2.60	37 03	16.22 6	38.3	6.84	34 51				
9.52w 9	80.7	93.04	45 00	17.62 2	40.8	96.58	38 15	15.03 10	74.7	2.63	32 03	17.44 3	40.4	7.18	37 55				
12.87 14	81.0	93.07	40 34	18.40 2	41.7	96.75	44 45	18.02 2	75.6	2.78	35 36	17.74 2	41.5	7.36	48 43				
18.09 1	81.3	93.15	48 12	18.22 2	44.6	97.25	34 22	18.02 2	75.9	2.81	49 39	18.17 2	44.6	7.93	41 28				
14.14 12	81.6	93.17	36 30	18.08 2	45.4	97.40	33 14	18.46 1	77.0	3.01	40 44	17.56 2	46.3	8.22	46 31				
18.16 1	81.9	93.20	31 18	17.94 2	48.5	97.97	49 48	14.38 11	77.9	3.19	47 12	16.50 1	46.5	8.29	32 29				
14.43 12	82.4	93.32	38 25	13.31 15	50.6	98.33	33 47	15.43 7	81.4	3.80	40 17	15.72 7	48.1	8.55	40 51				

25 prec. + $80^{s}.0$, − 8′ 19″

Area 32. Center for 1900: $12^{h}\ 51^{m} + 44°\ 50'$ $(20' \times 20')$

1—30				31—60				61—72				1s—4s			
Mag.	α 49^{m}	x	$y+50'$	Mag.	α 50^{m}	x	$y+50'$	Mag.	α 51^{m}	x	$y+50'$	Mag.	α 49^{m}	x	$\frac{y+50'}{y-10'}$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
17.51 1	41.3	86.06	59 11	18.54 1	43.6	97.11	49 05	16.93 1	20.1	3.56	58 11	16.57 2	34	84.7	46.8
16.41 3	43.1	86.37	47 16	16.52 3	43.9	97.15	43 10	16.58 3	20.4	3.62	55 09	12.19 15	82	93.2	39.2
18.18 1	44.3	86.60	59 12	17.00 3	44.9	97.32	46 10	15.16 1	21.0	3.71	58 03	14.85 8	85	93.9	1.5
17.51 1	50.0	87.65	40 16	16.55 3	45.1	97.36	51 07	17.92 2	21.6	3.83	45 03	13.69 9	150	5.3	53.1
16.85 3	56.0	88.64	41 20	16.55 3	45.1	97.37	57 01	14.00 12	21.8	3.87	53 17				
18.10 2	56.1	88.66	54 48	16.06 3	45.5	97.43	51 09	17.62 3	23.1	4.08	56 23				
14.28 10	57.2	88.89	56 13	18.04 3	46.6	97.62	47 05	18.24 1	25.6	4.55	52 55				
18.07? 1	58.6	89.12	46 08	18.48 1	47.4	97.76	48 17	16.08 3	25.8	4.59	43 48				
17.53 3	60.3	89.41	48 25	17.92 3	47.6	97.80	47 27	17.26 3	26.0	4.62	48 36				
16.81 3	66.0	90.40	44 08	18.13 3	48.2	97.91	46 32	10.70h 1	26.4	4.66	59 22				
17.61 3	68.8	90.93	54 09	18.26 2	48.5	97.97	48 23	10.74w 12	26.9	4.76	47 57				
17.70 3	70.2	91.18	58 52	13.69w 11	50.9	98.39	55 29	15.57 1	27.4	4.87	43 27				
14.28 12	71.1	91.34	47 18	17.77 3	51.0	98.40	58 04								
16.33n 1	71.4	91.36	41 52	15.82 3	52.0	98.59	41 45								
14.78 8	74.3	91.89	44 56	16.99 3	52.7	98.70	47 07								
17.09 3	74.7	91.96	48 18	17.04 3	54.2	98.97	54 23								
16.29 3	75.2	92.07	59 11	17.26 3	55.9	99.26	46 53								
16.49 3	75.3	92.09	48 00	16.30 3	57.1	99.49	52 44								
13.88w 11	79.8	92.86	44 15	17.24d 1	58.1	99.66	49 59								
14.68 9	82.6	93.39	56 37	17.87 3	58.9	99.81	41 10								
16.77 3	85.2	93.83	51 14	16.92 3	60.9	0.16	51 33								
16.26 3	86.1	93.98	45 57	17.02 3	63.0	0.55	42 31								
17.75 3	88.8	94.49	59 37	15.78 3	63.6	0.64	59 05								
18.06 3	89.6	94.62	48 14	16.20 3	63.6	0.65	45 00								
13.30w 12	90.5	94.78	55 46	16.18 3	65.6	1.00	50 04								
16.20 3	92.3	95.09	41 11	16.98 3	67.4	1.32	46 16								
11.96w 15	92.3	95.10	55 46	18.07 2	68.7	1.54	45 10								
9.72w 10	92.7	95.16	50 07	15.68 3	70.1	1.79	58 35								
16.34 3	95.8	95.71	59 12	18.36 1	71.4	2.03	47 44								
17.78 3	97.0	95.93	47 07	18.30 1	76.8	2.98	46 54								

25 prec. + $69^{s}.4$, − 8′ 9″

13$^{\text{h}}$

Area 33. Center for 1900: 13$^{\text{h}}$ 50$^{\text{m}}$ + 45° 10′ (20′ × 20′)

+ 45°

1—25				26—50				51—75				76—87				1*s*—6*s*			
Mag.	α 49$^{\text{m}}$	x	y+10′	Mag.	α 49$^{\text{m}}$	x	y+10′	Mag.	α 50$^{\text{m}}$	x	y+10′	Mag.	α 50$^{\text{m}}$	x	y+10′	Mag.	α 49$^{\text{m}}$	x	y+10′
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
16.74 3	10.5	91.29	11 58	17.41 1	47.5	97.80	19 19	17.26 3	10.2	1.80	5 47	17.41 1	43.0	7.56	24 31	16.72 2	7	90.7	8.3
16.72 3	12.2	91.56	9 39	17.69? 1	48.4	97.97	12 22	15.66 5	11.4	2.02	9 07	14.29 9	46.9	8.25	18 46	15.87 2	9	91.0	7.9
17.51 1	14.3	91.95	14 31	13.62 12	50.4	98.31	21 25	17.55 1	12.4	2.18	20 50	16.33 1	47.9	8.41	22 59	17.00 2	40	96.4	3.1
17.28? 1	14.4	91.97	11 26	12.41 14	51.4	98.49	6 40	14.22 9	14.3	2.52	8 11	17.37 1	48.8	8.58	23 31	15.05 7	78	3.2	1.6
16.78 3	16.2	92.29	7 59	16.30 3	53.3	98.83	22 49	16.91 3	14.4	2.54	23 03	16.80 3	56.0	9.84	15 14	16.48 2	82	3.8	3.6
10.87w14	16.6	92.36	16 29	15.25 2	53.6	98.89	24 39	13.27 13	15.9	2.80	24 15	16.66 1	56.4	9.92	23 25	14.90 5	108	8.4	4.3
17.01 3	17.1	92.44	5 41	17.74 1	53.8	98.91	13 08	16.47 3	17.1	3.02	11 57	17.05d 1	56.5	9.96	8 43				
17.55 1	22.0	93.32	18 24	17.74? 1	54.3	99.00	12 32	16.97 3	17.4	3.06	18 54	17.09 3	58.9	10.36	12 25				
17.22 3	23.8	93.63	15 42	16.30 3	55.4	99.18	10 54	14.43 9	19.5	3.43	12 34	17.10 3	59.3	10.45	13 38				
15.94 3	26.4	94.09	12 44	17.12 3	55.5	99.20	13 33	17.64 1	21.0	3.69	15 47	16.90d 1	59.8	10.51	17 16				
14.95 7	27.4	94.27	19 29	17.07 3	58.1	99.67	16 11	17.13 3	21.5	3.79	21 31	17.23 1	59.9	10.57	7 38				
16.20 3	27.8	94.35	17 32	13.49 12	58.6	99.75	18 22	12.90 14	22.1	3.89	12 18	16.70 3	61.5	10.84	14 25				
17.37x 1	30.8	94.87	15 26	17.18 3	58.9	99.80	12 24	16.86 3	22.5	3.97	10 36								
17.28 1	31.5	94.99	12 56	17.23 1	59.2	99.87	13 16	17.51 1	25.6	4.50	22 23								
17.09 3	34.8	95.56	13 18	17.28 1	60.7	0.12	14 40	16.97 3	28.3	4.96	16 24								
17.00 1	36.9	95.94	23 17	17.32 1	60.8	0.14	12 59	17.19 3	30.5	5.37	17 18								
16.96 3	37.4	96.01	6 10	15.27 9	61.0	0.18	8 10	16.69 3	31.3	5.51	11 34								
17.51 1	37.5	96.04	12 15	17.55 1	61.6	0.28	21 05	15.61 9	33.9	5.96	16 22								
16.11 3	38.0	96.11	7 42	16.66 3	62.0	0.35	12 26	17.51 2	34.1	6.00	11 01								
12.18w13	40.5	96.56	5 57	17.41 1	64.2	0.74	6 39	13.12 13	34.2	6.02	10 03								
16.46 3	41.6	96.75	8 50	16.99 3	66.3	1.11	7 39	17.16x 3	36.2	6.37	19 19								
17.39 3	42.5	96.91	9 14	9.40w12	66.6	1.16	12 52	16.83 3	37.2	6.55	13 58								
16.40 3	43.9	97.16	19 25	15.00 7	68.4	1.47	12 52	16.95 3	39.2	6.90	13 00								
16.81 3	44.1	97.20	9 47	17.17 3	69.8	1.74	6 32	16.83 3	41.5	7.30	17 49								
15.44 7	44.4	97.27	20 31	15.30 9	70.1	1.79	21 40	17.11 3	42.8	7.52	17 32								

25 prec. + 61$^{\text{s}}$.1, − 7′ 24″

14$^{\text{h}}$

Area 34. Center for 1900: 14$^{\text{h}}$ 48$^{\text{m}}$ + 45° 0′ (20′ × 20′)

+ 44°, + 45°

1—25				26—50				51—75				76—82				1*s*—11*s*			
Mag.	α 46$^{\text{m}}$	x	y+60′ y	Mag.	α 47$^{\text{m}}$	x	y+60′ y	Mag.	α 47$^{\text{m}}$	x	y+60′ y	Mag.	α 48$^{\text{m}}$	x	y+60′ y	Mag.	α 46$^{\text{m}}$	x	y+60′ y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
15.69 2	54.1	88.39	9 35	17.46 3	24.0	93.63	56 20	14.35 12	59.6	99.93	57 46	17.60 2	36.9	6.51	2 03	15.65 2	51	87.8	58.4
16.55 1	55.0	88.48	51 32	15.45 7	25.3	93.89	8 54	16.54 3	62.6	0.47	56 43	16.38 1	39.0	6.88	8 56	13.11 10	51	87.8	2.8
14.67 2	55.5	88.63	8 40	17.21 3	28.8	94.48	55 51	17.10 3	67.2	1.26	6 16	11.25 12	39.9	7.05	1 18	15.13 8	52	88.0	0.3
16.04 1	55.6	88.64	9 41	17.63 1	30.6	94.79	51 36	15.02 9	69.6	1.70	54 25	17.12 3	40.8	7.20	2 00	16.19 2	52	88.0	3.2
16.45 3	55.7	88.64	0 12	16.70 3	34.1	95.41	50 56	17.37 3	70.7	1.89	8 25	11.88 13	42.5	7.51	1 57	16.63 2	95	95.6	11.8
17.29 3	58.3	89.12	6 58	14.51 11	35.1	95.60	1 07	16.92 3	72.7	2.24	4 20	17.27 3	42.9	7.58	0 26	15.69 3	98	96.2	11.7
15.81 4	63.7	90.04	58 06	16.65 3	35.8	95.73	8 29	14.65 9	74.2	2.51	55 44	17.54 2	45.2	8.00	59 33	17.24 2	102	96.8	11.6
17.48 3	63.8	90.06	4 05	15.37 10	37.3	95.98	57 43	17.10 3	74.3	2.53	54 42					16.57 2	103	97.0	49.8
17.05 3	65.7	90.43	5 27	18.04 1	37.4	96.02	8 19	16.59 3	76.8	2.96	2 49					14.96 8	129	1.6	10.4
17.20 3	67.2	90.65	57 12	12.61 11	38.3	96.17	3 29	15.84 4	79.5	3.45	0 05					17.15 2	167	8.3	58.9
15.62 7	68.8	90.94	57 45	17.68 3	40.5	96.55	57 34	17.54 2	81.1	3.73	4 03					16.45 2	169	8.6	2.0
17.13 1	69.6	91.06	50 35	17.26 3	41.5	96.74	9 38	16.22 3	83.5	4.16	57 47								
12.88 14	69.7	91.11	0 42	16.96 3	44.3	97.23	6 13	15.72 5	85.1	4.43	3 14								
16.01 4	70.1	91.20	7 28	17.48 3	44.5	97.26	0 03	16.14 3	86.0	4.61	52 31								
16.96? 1	70.8	91.28	51 27	9.89w 6	47.3	97.76	1 14	16.96 1	86.2	4.65	51 52								
17.26 3	72.1	91.55	8 33	10.53w10	47.8	97.85	1 10	16.46 1	86.7	4.73	51 30								
17.40 3	72.8	91.65	57 17	15.88 3	49.8	98.20	52 17	17.23 3	87.3	4.84	58 28								
11.31h 1	74.1	91.86	51 03	17.21 3	54.2	98.98	57 15	16.68 3	88.0	4.97	53 29								
16.89 3	74.3	91.92	1 09	16.39 3	54.8	99.09	56 23	17.54? 1	90.6	5.43	50 27								
15.17 7	74.8	92.04	8 28	16.80* 1	55.4	99.19	50 37	16.17 4	92.1	5.67	5 43								
17.21? 1	80.5	93.00	50 36	16.55 1	55.6	99.22	50 33	15.37 7	92.5	5.73	8 10								
17.48 3	81.0	93.12	4 23	15.03 10	56.1	99.31	52 52	13.84 12	92.8	5.80	58 31								
15.35 10	81.7	93.22	57 18	17.43 3	56.2	99.33	55 09	13.16 2	92.7	5.80	52 10								
15.04 10	81.9	93.26	57 20	17.26 3	58.2	99.69	0 10	16.60 3	93.4	5.88	5 46								
15.23 9	82.1	93.31	0 02	15.15 9	58.5	99.74	0 34	14.87 9	93.3	5.89	0 08								

25 prec. + 54$^{\text{s}}$.5, − 6′ 13″

Area 35. Center for 1900: $15^{\mathrm{h}}\ 49^{\mathrm{m}} + 44°\ 50'$ ($20' \times 20'$)

1—60				61—120				121—163				1s—12s			
Mag.	α 48^{m}	x	$y+50'$	Mag.	α 49^{m}	x	$y+50'$	Mag.	α 49^{m}	x	$y+50'$	Mag.	α 48^{m}	x	$y+50'$ / $y-10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
16.94 3	32.4	95.11	50 26	15.44 7	16.7	2.97	42 49	15.34 7	50.9	9.03	56 37	16.68 2	28	94.3	47.9
17.29 2	32.8	95.18	51 40	13.36 10	17.1	3.03	52 26	17.14 3	53.0	9.40	55 40	16.51 2	30	94.7	51.7
17.65 1	33.0	95.22	48 16	17.44 3	17.4	3.09	49 26	17.20 3	53.9	9.57	54 14	16.68 2	66	1.1	38.9
17.61 1	33.3	95.28	56 17	17.28 3	19.9	3.53	53 00	17.39 1	54.0	9.59	45 04	16.90 2	99	7.0	38.3
17.07 1	33.4	95.30	57 20	17.05 3	20.2	3.58	40 53	17.79 1	54.7	9.70	49 08	17.07 2	101	7.3	0.4
16.76 1	34.6	95.50	57 54	17.24 3	20.2	3.59	56 45	16.74 3	55.2	9.79	52 00	16.55 2	102	7.5	39.2
16.91 3	35.2	95.61	49 07	17.34 2	20.9	3.70	52 30	13.45 10	56.4	10.02	40 31	16.17 2	106	8.2	39.2
17.61 1	35.4	95.63	42 27	16.52 3	20.9	3.71	50 28	17.22 2	57.3	10.16	54 23	16.92 2	106	8.2	39.5
9.51h 1	35.6	95.68	59 46	17.10 3	21.3	3.78	54 49	13.81 10	59.4	10.55	43 16	17.12 2	116	9.9	39.6
17.65 1	36.2	95.77	44 04	17.74 1	21.3	3.79	55 41	17.23 3	59.9	10.63	47 56	15.52 5	145	15.1	49.3
17.65 1	38.1	96.12	47 08	17.34 1	21.8	3.87	50 38	17.57 1	61.6	10.93	55 23	15.77 3	149	15.8	52.6
17.43 1	38.2	96.13	42 28	12.53 11	22.6	4.00	54 23	17.26 2	62.1	11.02	54 50	13.71 9	150	16.0	47.4
13.29 12	38.7	96.22	50 25	17.27 2	24.1	4.27	57 44	17.07 3	62.6	11.10	50 33				
17.70 1	39.9	96.44	47 47	16.34 4	24.2	4.28	47 22	16.93 3	63.8	11.33	42 22				
14.58 8	40.4	96.52	54 55	17.27 3	25.1	4.45	54 04	17.61 1	64.7	11.47	46 07				
16.37 3	40.5	96.53	42 18	17.36 3	25.3	4.49	53 20	17.12 3	65.0	11.53	54 04				
13.10 12	41.0	96.64	51 21	13.84 10	25.6	4.54	46 21	17.29 2	65.8	11.69	43 56				
17.12 1	41.6	96.74	59 50	17.43 1	26.0	4.62	41 46	17.24 2	66.5	11.78	46 33				
15.53 6	41.8	96.76	55 45	17.46 3	26.1	4.63	55 13	14.45 8	67.2	11.92	51 51				
11.49w 13	41.9	96.78	53 19	16.97 3	26.3	4.66	56 50	16.27 3	67.5	11.96	50 41				
17.21 1	42.4	96.89	59 54	14.62 8	26.4	4.68	48 04	17.65 1	68.0	12.06	56 09				
16.64 3	44.4	97.24	55 57	17.79 1	26.4	4.68	44 42	16.66 1	68.3	12.14	40 02				
16.57 3	45.8	97.48	51 40	15.37 9	26.8	4.75	50 49	17.24 2	72.3	12.81	51 15				
17.18 3	46.1	97.54	56 34	15.38 6	27.8	4.94	40 28	17.65 1	72.4	12.84	56 36				
17.70 1	46.5	97.60	44 47	17.30 1	28.2	5.00	54 08	16.61 3	73.7	13.06	45 58				
17.74 1	46.6	97.62	50 34	**10.89w 13**	**28.8**	**5.11**	**49 09**	17.18 3	74.9	13.29	45 57				
13.80 9	48.1	97.89	42 51	14.20 9	29.2	5.18	44 30	17.21 1	76.5	13.57	48 16				
16.57 3	48.2	97.90	49 00	16.08 4	29.5	5.24	40 23	17.34 1	76.5	13.57	46 52				
13.27 11	48.9	98.04	43 52	14.86 9	30.0	5.31	58 49	17.57 1	77.3	13.70	52 02				
14.24 9	49.2	98.09	47 53	16.11 4	30.7	5.45	44 13	17.70 1	77.6	13.76	47 30				
17.34 1	50.5	98.31	56 44	17.39 3	32.3	5.74	50 52	16.92 3	77.9	13.81	52 29				
17.70 1	50.6	98.34	52 10	17.37 3	32.6	5.78	47 40	17.16 1	78.0	13.84	57 35				
17.65 1	50.9	98.39	42 39	17.79 1	32.9	5.84	48 09	17.00 2	79.7	14.13	55 33				
17.03 1	50.9	98.39	58 45	16.40 3	32.9	5.84	43 26	17.20 3	80.3	14.24	48 31				
17.70 1	54.4	99.01	55 13	16.26 2	34.8	6.16	50 36	16.53 1	80.4	14.25	59 52				
17.79 1	56.2	99.32	48 32	17.70 1	35.1	6.22	58 45	17.14 3	81.1	14.39	50 28				
14.47 7	57.2	99.50	46 21	16.99 3	35.5	6.30	57 56	16.11 4	82.1	14.57	55 19				
16.07 4	58.0	99.65	46 49	13.38 10	36.3	6.44	56 12	16.93 2	82.9	14.73	44 26				
17.47 2	59.9	99.98	56 58	16.99 3	37.6	6.66	58 30	17.16 1	83.4	14.79	57 13				
17.74 1	60.1	0.01	46 31	17.16 3	38.4	6.81	54 11	16.93 3	83.5	14.81	49 47				
16.85 1	60.2	0.03	59 33	14.21 8	38.8	6.88	55 31	15.92 2	84.1	14.92	56 35				
15.90 4	60.2	0.03	54 17	13.12 12	38.8	6.89	57 55	17.52 1	84.2	14.93	50 19				
15.88 4	60.5	0.08	57 49	17.56 2	39.9	7.09	55 09	16.92 3	84.3	14.95	54 21				
17.74 1	60.6	0.11	45 35	17.67 2	40.4	7.17	48 00								
17.65 1	62.1	0.36	48 45	15.76 7	41.0	7.27	47 05								
17.79 1	63.2	0.57	46 53	15.58 7	41.9	7.44	55 48								
17.25 1	63.5	0.62	46 18	17.20 3	43.8	7.77	58 55								
16.82 3	64.2	0.75	52 11	13.23 12	44.8	7.95	57 06								
17.65 1	64.7	0.83	58 02	16.91 3	44.9	7.98	40 30								
17.27 3	65.7	1.01	45 55	17.54 2	45.0	7.99	55 04								
17.32 3	65.9	1.05	45 40	17.09 3	45.7	8.10	59 51								
16.92 3	66.1	1.08	41 54	15.76 7	46.1	8.18	54 02								
14.02 10	68.0	1.41	48 14	14.08 9	46.2	8.20	45 08								
17.79 1	68.4	1.49	51 32	17.27 3	47.0	8.33	45 21								
16.18 3	68.3	1.49	43 51	16.01 5	47.3	8.39	50 55								
16.99 3	70.0	1.76	58 24	17.35 3	47.6	8.44	46 34								
17.20 3	71.2	1.98	57 33	17.43 1	47.7	8.47	52 55								
16.26 3	73.6	2.42	59 41	17.23 3	49.6	8.80	57 00								
15.99 6	75.7	2.78	47 13	17.30 1	49.9	8.85	50 51								
17.87 1	75.7	2.79	51 49	16.84 3	49.9	8.86	41 20								

25 prec. + $48^{\mathrm{s}}.7$, − 4′ 30″

Area 36. Center for 1900: 16^{h} 46^{m} + 45° 20′ (15′ × 15′)

1—30				31—60				61—90				91—102			
Mag.	α 45^{m}	x	$y+20'$	Mag.	α 45^{m}	x	$y+20'$	Mag.	α 46^{m}	x	$y+20'$	Mag.	α 46^{m}	x	$y+20'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.86 3	14.9	92.09	24 36	15.98 9	43.9	97.16	17 23	18.77 1	14.3	2.51	20 19	18.22 1	31.2	5.49	25 27
17.95 3	15.0	92.10	25 39	17.70 3	44.0	97.18	16 19	16.77 5	15.1	2.65	29 28	14.22 12	33.2	5.84	18 05
15.96 8	15.8	92.23	16 07	16.22 9	44.3	97.24	20 46	16.24 9	15.1	2.65	18 49	17.83 3	34.2	6.01	21 12
13.19 17	16.7	92.38	21 49	17.95 3	45.0	97.36	16 13	17.77 3	15.9	2.80	26 58	18.29? 1	34.2	6.02	20 16
16.76 3	17.7	92.57	19 58	17.78 2	47.0	97.71	23 52	17.74 3	17.1	3.00	26 09	16.47 7	34.2	6.02	25 19
13.48 15	18.6	92.73	16 50	18.02 2	47.4	97.78	24 08	16.39 6	17.4	3.07	26 59	16.40 8	34.6	6.08	29 08
16.00 9	19.1	92.81	21 59	18.29 1	47.5	97.80	17 54	18.15 3	18.0	3.17	22 36	17.77 3	35.3	6.20	27 49
15.98 9	19.5	92.88	15 08	17.21 3	49.2	98.10	17 59	15.39 10	19.5	3.43	29 04	16.09 9	35.4	6.22	28 32
18.05 3	20.4	93.05	22 56	18.47 3	49.7	98.19	23 53	17.82 3	19.8	3.49	21 29	17.91 3	37.0	6.50	17 34
17.82 2	20.5	93.07	15 26	18.06 2	49.9	98.23	20 40	16.48 5	20.0	3.52	16 37	17.89 3	37.4	6.57	20 01
18.29 1	20.6	93.09	19 01	18.45 1	53.9	98.94	16 18	18.14 1	20.1	3.53	29 33	14.88 11	39.0	6.85	19 29
16.91 3	21.4	93.21	21 30	17.94 2	54.6	99.05	24 33	17.88 3	20.6	3.62	28 33	17.42 3	39.4	6.92	28 29
17.97 3	21.7	93.26	26 54	18.22 1	57.3	99.53	26 14	14.54 13	20.7	3.63	26 47				
17.64 3	22.6	93.44	27 24	18.14 2	57.4	99.54	25 49	17.52 3	21.5	3.78	23 06				
14.42 13	22.8	93.46	22 02	**9.34w10**	**58.2**	**99.69**	**22 29**	16.92 5	21.9	3.85	23 55				
14.57 13	25.1	93.86	26 07	14.83 9	58.8	99.79	21 00	17.34 3	23.2	4.09	26 05				
13.88 14	28.4	94.45	28 42	18.61 1	60.3	0.05	17 05	16.89 5	24.3	4.26	26 51				
18.53 1	28.6	94.48	17 47	13.98 13	61.5	0.26	16 25	16.90 5	24.6	4.32	27 33				
14.71 12	29.6	94.66	16 52	16.97 5	61.7	0.32	29 23	14.70 12	25.2	4.44	19 10				
18.11 3	30.7	94.85	23 40	16.50 9	61.9	0.35	20 14	17.91 3	25.4	4.47	17 42				
16.94 5	30.9	94.88	22 39	16.94 6	62.2	0.39	23 52	14.88 11	26.0	4.56	20 19				
17.70 2	32.0	95.09	18 35	17.06 4	62.5	0.45	20 14	16.00 9	26.3	4.63	25 44				
17.26 3	33.0	95.25	16 30	17.82 3	64.8	0.84	28 30	15.35 11	27.6	4.85	22 29				
18.53 1	36.2	95.82	27 35	14.98 10	66.0	1.04	19 45	17.38 3	28.6	5.03	16 53				
14.88 12	37.4	96.03	29 27	17.98 3	67.0	1.23	21 50	18.61 1	29.0	5.10	15 43				
15.94 9	40.0	96.49	26 02	18.08 2	69.0	1.59	15 51	18.45 1	30.3	5.32	26 20				
13.84 14	40.3	96.54	24 48	13.44 15	69.6	1.69	21 07	16.42 6	30.5	5.35	19 57				
16.50 8	40.5	96.57	24 36	15.50 9	70.0	1.77	25 44	18.61 1	30.6	5.39	22 23				
13.26 15	41.9	96.82	16 44	18.10 2	72.1	2.13	18 49	16.45 8	30.9	5.43	28 08				
16.68 6	42.1	96.85	22 42	18.21 3	73.8	2.43	27 40	18.12 2	31.1	5.46	20 17				

25 prec. + 44ˢ.7, − 2′ 39″

16^{h}

Area 36. Supplementary Stars

+ 45°

1s—20s				21s—40s				41s—60s				61s—63s			
Mag.	α 44^{m}	x	$y+20'$	Mag.	α 45^{m}	x	$y+20'$	Mag.	α 46^{m}	x	$y+20'$	Mag.	α 46^{m}	x	$y+20'$
	s	′	′		s	′	′		s	′	′		s	′	′
17.58 2	56	88.7	20.2	12.95 15	45	97.4	32.2	16.94 2	27	4.7	13.1	17.38 2	58	10.2	24.0
17.59 2	57	89.0	22.0	17.68 2	51	98.5	14.1	17.60 2	29	5.0	30.1	16.29 5	61	10.7	22.3
17.74 2	60	89.4	24.6	17.52 2	52	98.6	13.1	16.33 5	30	5.3	13.5	14.65 10	61	10.7	22.8
14.64 10	60	89.5	27.2	16.10 7	56	99.3	30.2	16.55 2	39	6.8	14.4				
14.92 6	62	89.9	21.8	16.11 5	58	99.6	13.1	17.15 2	41	7.2	17.1				
16.24 5	64	90.1	19.9	16.07 7	58	99.6	33.0	17.84 2	41	7.2	17.4				
15.09 8	64	90.2	19.9	14.69 11	59	99.8	30.6	17.66 2	41	7.2	25.3				
15.99 7	65	90.3	28.7	14.77 10	59	99.9	11.5	14.95 9	42	7.3	20.1				
17.32 2	65	90.4	19.5	16.99 2	61	0.2	14.8	16.86 2	43	7.6	14.8				
17.10 2	66	90.6	25.7	17.77 2	61	0.2	30.4	16.15 5	44	7.7	22.6				
17.37 2	67	90.7	17.8	16.72 4	62	0.4	31.9	13.20 14	48	8.4	20.9				
16.43 5	67	90.7	25.8	17.80 2	63	0.6	11.5	14.40 10	49	8.6	23.9				
14.39 11	70	91.2	27.0	16.19 7	63	0.6	31.0	14.61 9	49	8.6	25.5				
17.56 2	71	91.4	17.7	15.92 7	66	1.0	32.9	17.64 2	50	8.7	23.2				
17.54 2	73	91.7	19.4	18.06 2	71	1.9	31.0	17.64 2	50	8.7	23.3				
16.64 4	93	95.2	30.6	15.73 7	72	2.1	11.8	17.05 2	51	8.9	21.3				
16.05 7	97	96.0	30.2	16.33 7	76	2.8	14.3	15.77 7	54	9.4	25.3				
17.48 2	101	96.7	14.4	15.04 8	79	3.4	12.1	17.82 2	55	9.7	21.0				
14.59 11	102	96.8	12.0	15.99 7	83	4.0	30.4	15.43 7	56	9.9	18.6				
15.57 7	105	97.4	13.4	17.20 2	83	4.1	14.5	13.82 10	57	10.0	19.3				

25 prec. + 44ˢ.7, − 2′ 39″

Area 37. Center for 1900: 17h 49m + 45° 0′ (15′ × 15′)

1—60			
Mag.	α 47^{m}	x	y+60′ y
	s	′	′ ″
12.13w11	46.7	87.04	56 33
16.46 5	47.3	87.15	4 26
16.40 5	47.4	87.17	3 31
16.93 5	47.3	87.18	6 33
17.87 3	47.8	87.26	6 10
18.53 1	48.0	87.30	7 36
18.36 1	48.1	87.31	5 03
17.77 2	48.2	87.32	4 17
17.40 3	48.5	87.38	7 51
17.73 3	49.2	87.52	8 18
18.02? 1	49.5	87.55	3 41
18.62 1	49.6	87.57	3 54
16.79 5	50.3	87.67	57 42
17.45 3	50.5	87.70	57 30
15.15 10	50.5	87.70	59 23
18.70 1	51.1	87.80	56 49
18.62 1	51.4	87.88	4 45
18.62 1	51.9	87.97	4 50
15.07 11	52.0	88.00	6 37
17.00 5	52.6	88.07	58 14
15.46 10	52.8	88.14	3 17
18.27 1	53.8	88.32	58 13
14.98 10	53.9	88.35	9 09
17.96 3	54.0	88.37	58 18
13.67 13	54.1	88.37	0 36
17.52 3	54.3	88.42	7 02
18.70 1	54.9	88.48	57 10
18.28 2	56.1	88.68	58 10
18.01 3	56.6	88.81	6 42
18.62 1	57.0	88.89	6 57
16.51 5	57.1	88.89	2 22
17.84 2	57.3	88.92	2 08
16.55 5	57.5	88.97	0 12
17.08 5	57.7	88.99	58 07
15.59 8	58.1	89.06	3 38
18.45 1	58.3	89.08	58 34
13.58 14	58.8	89.16	55 17
17.41 3	58.8	89.17	59 48
17.92 3	58.9	89.19	59 34
16.21 5	59.3	89.27	55 21
18.11 2	59.9	89.36	57 14
18.70 1	59.8	89.36	2 01
17.46 3	60.0	89.40	2 49
18.02 1	60.2	89.41	57 08
17.29 3	60.2	89.45	8 08
18.62 1	60.5	89.46	55 16
18.79 1	60.6	89.50	1 57
17.77 2	61.6	89.68	4 31
17.39 3	61.7	89.71	7 26
18.01 3	61.9	89.72	55 04
18.36 1	62.1	89.75	55 44
17.50 3	62.1	89.77	2 42
17.45 3	62.4	89.83	3 58
15.75 8	62.9	89.91	0 59
13.29 14	63.5	90.00	57 14
16.84 5	63.5	90.03	8 27
17.93 3	63.6	90.04	3 40
16.85 5	63.7	90.05	4 48
18.79 1	63.9	90.07	56 21
18.49 2	64.6	90.23	6 39

61—120			
Mag.	α 48^{m}	x	y+60′ y
	s	′	′ ″
18.79 1	5.1	90.28	57 41
17.90 2	5.5	90.38	6 52
16.18 5	5.6	90.40	8 59
18.88 1	5.8	90.42	1 20
18.45 1	5.7	90.42	9 20
14.11 10	5.9	90.46	7 13
17.23 3	6.3	90.51	2 12
17.09 5	7.9	90.79	56 41
18.62 1	7.8	90.80	6 06
15.20 10	8.4	90.89	4 12
17.84 1	8.8	90.96	7 12
17.88 3	9.1	91.03	9 56
13.81 13	9.9	91.15	4 13
18.96 1	10.6	91.27	58 53
15.81 6	11.0	91.33	56 20
17.74 2	11.2	91.36	56 25
18.96 1	11.2	91.37	58 51
18.62 1	11.0	91.37	7 04
16.22 5	11.1	91.39	9 48
16.29 5	11.4	91.42	2 40
18.88 1	11.7	91.45	58 23
17.44 3	11.7	91.46	4 39
18.96 1	11.9	91.48	58 55
17.69 3	12.0	91.53	7 05
13.98 12	12.2	91.57	8 32
12.98w10	12.3	91.59	9 12
18.96 1	12.6	91.61	59 31
18.70 1	13.1	91.70	59 51
16.91 5	13.4	91.75	57 24
17.77 3	13.5	91.76	59 40
18.05 3	13.5	91.77	58 03
18.45 1	14.3	91.95	9 39
16.73 5	14.4	91.96	8 28
17.84 2	14.5	91.99	6 35
15.94 5	14.6	92.00	5 14
15.54 8	14.7	92.02	7 59
13.52 11	14.8	92.03	5 53
9.53w 4	15.3	92.09	55 59
9.55w 4	16	92.1	56 00
15.05 10	15.8	92.18	58 27
18.79 1	15.8	92.18	3 08
18.62 1	15.9	92.20	57 30
18.88 1	17.1	92.41	58 11
16.45 5	17.0	92.41	3 41
17.76d 1	17.3	92.46	5 51
18.53 1	17.4	92.49	8 41
14.98 9	17.8	92.55	4 58
17.02 5	18.5	92.65	57 37
17.64 3	19.0	92.77	2 39
18.45 1	20.0	92.91	56 37
18.79 1	20.2	92.95	56 28
18.70 1	20.3	92.99	3 23
15.16 10	20.5	93.03	3 50
15.68 6	20.7	93.06	9 43
18.70 1	21.5	93.19	55 35
17.27 5	22.9	93.43	59 42
13.08 14	23.2	93.49	55 34
18.62 1	23.4	93.55	5 30
17.57 3	23.6	93.56	3 45
15.89 5	24.2	93.69	2 53

121—180			
Mag.	α 48^{m}	x	y+60′ y
	s	′	′ ″
18.27 1	24.4	93.72	5 42
17.79 3	24.5	93.74	9 40
18.32 2	24.5	93.75	5 30
18.00 3	24.6	93.76	9 51
18.88 1	25.0	93.80	59 40
18.08 2	25.1	93.82	59 52
16.52 5	25.5	93.90	57 24
18.88 1	25.6	93.91	59 21
15.37 9	25.7	93.95	1 40
17.52 3	26.0	94.00	4 00
15.35 9	26.5	94.06	56 52
18.88 1	26.8	94.13	59 49
14.05 12	27.1	94.18	0 07
18.20 2	27.3	94.23	7 18
18.13 3	27.7	94.28	59 04
18.62x 1	27.6	94.29	3 54
14.54 11	28.1	94.37	0 46
15.52 8	28.9	94.50	56 58
18.16 2	29.3	94.59	5 00
17.82 2	29.8	94.69	7 33
18.03 3	30.1	94.71	3 14
17.12 5	30.1	94.73	6 07
12.70 10	30.6	94.80	2 53
17.85 3	30.7	94.83	9 51
17.93 1	30.7	94.83	6 03
10.07w 9	30.9	94.86	0 27
18.16 3	31.0	94.86	55 50
18.62 1	31.4	94.96	5 52
16.63 5	32.1	95.09	8 38
17.67 3	32.6	95.15	58 55
17.00 4	33.8	95.39	7 16
16.30 5	33.9	95.40	8 06
17.15 5	34.1	95.43	1 09
15.46 8	34.4	95.47	59 28
16.40 5	34.8	95.55	5 48
15.50 7	35.4	95.65	55 08
17.15 5	35.5	95.66	1 27
16.27 5	35.8	95.73	5 15
17.03 4	36.0	95.76	5 20
18.28 2	36.6	95.86	10 00
15.14 10	36.6	95.87	55 55
17.95 3	36.9	95.93	7 13
16.85 4	37.3	95.99	55 03
17.84 3	37.6	96.05	4 11
18.70 1	37.9	96.09	57 41
18.62 1	38.3	96.16	4 22
17.20 5	39.4	96.37	4 52
17.09 5	39.9	96.45	59 13
15.16 10	40.2	96.50	9 56
14.05 10	40.3	96.51	59 00
18.22 2	40.4	96.54	55 39
16.21 5	41.0	96.65	0 11
18.70 1	41.2	96.67	59 03
17.99 2	41.6	96.75	57 27
18.53 1	41.7	96.76	6 15
17.02 3	41.7	96.76	5 45
17.88 3	42.1	96.84	55 13
16.24 5	42.3	96.88	7 00
17.24 5	42.7	96.95	4 39
18.08 2	42.8	96.97	5 27

181—240			
Mag.	α 48^{m}	x	y+60′ y
	s	′	′ ″
18.13 2	42.9	96.98	4 07
12.76w10	43.1	97.02	5 48
17.15 5	43.5	97.09	56 50
16.99 4	43.8	97.15	9 57
17.23 3	44.2	97.21	5 59
17.17 4	44.2	97.22	8 11
17.83 2	44.3	97.22	3 39
15.77 6	44.3	97.23	57 42
17.39 5	44.6	97.28	55 55
14.82 10	44.7	97.30	8 52
14.31 10	44.9	97.33	5 16
16.82 4	45.0	97.35	9 48
18.22 2	45.2	97.38	1 50
17.73 3	46.0	97.54	8 33
16.16 5	46.2	97.57	5 57
13.39 13	46.8	97.66	9 49
18.16 3	46.8	97.66	57 55
16.25 5	47.3	97.77	6 35
16.94 5	48.2	97.91	55 43
18.12 2	48.3	97.93	1 07
16.38 5	48.3	97.93	6 26
18.05 3	48.4	97.95	59 20
18.62 1	49.0	98.06	0 40
16.45 5	49.4	98.12	58 26
17.89 2	49.4	98.12	58 17
17.56 4	49.7	98.19	0 59
17.99 3	49.8	98.20	7 45
17.03 5	49.9	98.21	57 01
16.93 5	49.9	98.22	2 18
17.61 5	50.3	98.28	0 13
15.59 9	50.6	98.34	1 00
17.15 3	50.7	98.35	58 36
13.42 14	51.4	98.48	57 43
18.62 1	51.7	98.54	3 37
15.74 8	52.3	98.64	59 28
17.88 3	52.5	98.68	9 27
16.69 5	52.7	98.71	8 25
16.37 5	53.2	98.80	7 26
18.53x 1	53.2	98.80	55 38
18.01 3	53.7	98.89	9 30
17.51 3	55.7	99.24	5 34
16.81 5	56.2	99.33	3 53
17.99 3	57.3	99.52	58 12
17.84 2	58.2	99.68	55 15
15.99 5	58.2	99.68	55 05
18.53 1	59.6	99.94	4 46
16.81 5	59.7	99.95	5 00
16.45 5	59.9	99.99	58 51
17.66 3	60.9	0.17	0 41
18.53 1	61.0	0.18	3 51
16.21 5	61.0	0.19	55 45
16.13 5	61.3	0.23	58 19
16.41 5	61.6	0.28	59 45
12.79w11	61.8	0.32	7 28
14.87 11	61.9	0.33	58 08
17.84 1	62.4	0.43	58 55
17.69 3	63.5	0.61	57 11
16.87 5	63.5	0.62	5 31
17.91 3	64.4	0.79	0 49
17.22 3	64.7	0.83	5 30

241—253			
Mag.	α 49^{m}	x	y+60′ y
	s	′	′ ″
18.10 2	6.5	1.15	9 08
17.27 3	6.6	1.16	4 46
18.58 2	6.6	1.17	58 45
18.06 3	6.7	1.18	59 26
17.61 3	7.2	1.26	8 38
17.77 3	7.3	1.30	58 59
16.74 5	7.6	1.35	55 31
17.54 3	9.0	1.58	0 54
15.01 10	9.4	1.66	8 00
15.47 10	10.3	1.82	2 22
17.93 3	10.4	1.85	55 45
14.96 10	10.6	1.87	5 07
18.38 2	10.7	1.88	1 19

25 prec. + $43^{s}.2$, − 0′ 25″

17^h Area 37. Supplementary Stars + 44°, + 45°

1s—30s				31s—60s				61s—90s				91s—117s			
Mag.	α 47^m	x	$\frac{y+60'}{y}$	Mag.	α 48^m	x	$\frac{y+60'}{y}$	Mag.	α 48^m	x	$\frac{y+60'}{y}$	Mag.	α 49^m	x	$\frac{y+60'}{y}$
	s	′	′		s	′	′		s	′	′		s	′	′
16.71 4	30	84.1	2.3	17.78 2	3	89.9	50.2	17.79 2	45	97.3	51.4	16.21 4	16	2.8	6.2
17.66 2	31	84.2	4.3	17.86 2	5	90.2	53.9	17.78 2	45	97.4	54.6	17.40 2	16	2.9	3.4
16.46 4	33	84.6	58.3	17.78 2	4	90.2	10.6	16.63 4	47	97.7	52.7	17.76 2	18	3.1	5.2
17.90 2	33	84.6	2.8	16.18 4	6	90.5	54.6	16.85 4	48	97.8	50.7	16.92 4	18	3.2	0.1
14.73 9	35	85.0	1.9	17.80 2	8	90.7	50.3	17.02 4	48	97.9	54.2	15.55 6	19	3.3	6.3
14.65 10	36	85.2	6.0	15.01 7	13	91.6	51.0	17.79 2	49	98.0	50.8	17.72 2	20	3.5	1.0
14.94 7	38	85.4	57.0	15.84 6	13	91.6	52.7	16.52 4	50	98.2	10.3	16.26 4	22	3.8	1.9
16.78 4	38	85.4	2.2	12.71 13	13	91.7	51.3	17.74 2	50	98.2	10.6	17.41 2	23	4.0	0.4
16.35 4	39	85.7	57.0	16.01 4	14	91.9	11.3	15.08 9	50	98.2	11.2	16.04 4	23	4.1	56.6
13.66 12	39	85.7	57.8	15.52 6	15	92.2	11.4	17.62 2	50	98.3	52.0	15.11 9	23	4.1	5.9
17.80 2	40	85.8	57.0	14.55 9	18	92.5	49.7	15.14 9	50	98.3	10.4	14.24 10	24	4.2	56.3
17.64 2	41	86.0	57.9	16.50 4	20	92.8	53.4	16.77 4	51	98.4	53.7	17.86 2	24	4.2	1.0
10.94 10	41	86.1	0.3	16.59 4	21	93.1	51.2	17.66 2	51	98.4	54.2	16.73 4	24	4.3	0.2
15.68 6	41	86.1	6.7	17.71 2	22	93.2	49.4	17.76 2	52	98.6	50.4	17.84 2	25	4.5	1.9
16.50 4	42	86.2	58.5	17.78 2	21	93.2	11.0	17.71 2	52	98.6	10.6	16.66 4	26	4.6	55.8
15.39 6	42	86.2	0.0	16.77 4	23	93.4	51.6	17.74 2	53	98.7	11.0	17.31 2	27	4.8	57.9
16.82 4	42	86.2	1.7	16.62 4	24	93.6	49.4	15.82 3	53	98.8	10.2	17.06 2	27	4.8	59.8
17.36 2	42	86.3	59.6	16.90 3	24	93.7	54.1	17.50 2	54	98.9	51.4	17.65 2	28	4.9	1.6
16.86 2	42	86.3	3.6	17.80 2	26	94.0	10.8	17.36 2	65	0.8	51.9	16.62 4	29	5.0	55.6
17.84 2	43	86.4	53.4	17.94 2	27	94.1	53.3	16.64 2	65	0.9	55.0	15.95 5	30	5.2	4.8
17.46 2	44	86.6	59.4	14.73 9	32	95.0	52.4	16.47 4	68	1.4	51.8	17.57 2	31	5.4	56.2
16.18 4	45	86.8	54.2	15.36 8	33	95.2	10.5	16.57 4	70	1.7	52.9	17.71 2	31	5.4	56.4
13.70 13	45	86.8	3.1	11.55 12	36	95.7	49.2	17.65 2	70	1.7	54.7	17.76 2	31	5.4	58.2
15.76 5	46	86.9	6.4	17.18 4	37	95.8	52.4	17.55 2	71	2.0	8.4	17.41 2	30	5.4	4.4
16.51 4	52	88.0	54.8	16.35 4	36	95.8	10.4	17.46 2	72	2.1	7.7	17.18 2	31	5.5	57.4
14.43 10	53	88.2	51.2	15.62 6	37	95.9	52.2	15.37 9	72	2.2	5.6	16.39 4	32	5.6	57.5
15.90 5	54	88.2	53.0	17.23 4	40	96.5	52.6	16.27 4	73	2.3	53.7	12.85 14	34	6.0	58.7
17.74 2	54	88.3	54.3	17.94 2	40	96.5	54.9	14.97 9	73	2.3	54.0				
17.86 2	56	88.7	54.3	16.81 4	43	96.9	49.6	15.19 9	73	2.4	6.8				
17.74 2	62	89.7	10.4	17.49 2	42	96.9	54.5	16.62 4	74	2.4	7.9				

25 prec. + $43^s.2$, − 0′ 25″

18^h Area 38. Center for 1900: 18^h 46^m + 45° 10′ (15′ × 15′) + 45°

1—20				21—40				41—60				61—80				81—100			
Mag.	α 45^m	x	$y+10'$	Mag.	α 45^m	x	$y+10'$	Mag.	α 45^m	x	$y+10'$	Mag.	α 45^m	x	$y+10'$	Mag.	α 45^m	x	$y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
16.31 9	29.4	94.62	17 46	16.31 9	33.2	95.29	15 41	17.64 3	37.2	95.99	7 21	14.47 14	41.5	96.74	7 18	14.33 14	47.1	97.74	12 38
15.96 10	29.6	94.65	13 01	14.65 14	33.4	95.30	7 15	12.82 18	37.6	96.07	18 21	13.35 17	41.6	96.75	5 21	15.69 11	47.2	97.75	18 55
17.98 3	30.3	94.76	11 14	17.81 3	33.8	95.38	8 07	18.47 1	38.5	96.21	6 58	16.59 9	41.6	96.77	18 45	17.88 3	47.4	97.79	12 19
17.49 3	30.4	94.79	12 41	16.12 10	33.8	95.38	11 31	15.90 10	38.7	96.27	15 53	16.22 9	41.7	96.78	16 42	17.69 3	47.7	97.83	16 07
17.58 3	30.5	94.81	18 16	17.69w 2	34	95.4	19 48	15.34 11	39.2	96.34	7 34	17.81w 2	42	96.8	15 48	18.23 3	48.2	97.93	11 09
17.53 3	30.6	94.81	8 51	16.49 9	33.9	95.41	18 59	17.90 3	39.3	96.35	10 13	16.35 9	42.6	96.95	19 12	16.39 9	48.3	97.93	6 04
16.74 3	30.7	94.84	9 42	14.44 13	34.5	95.50	9 31	17.89 3	39.2	96.35	15 44	18.36 1	43.0	97.00	13 49	16.46 9	48.3	97.95	18 47
17.54 3	30.9	94.88	18 59	18.69 1	34.5	95.52	11 40	17.17 5	39.5	96.38	10 00	17.60 3	44.2	97.22	16 56	17.82d 1	48.6	97.98	7 18
14.96 12	31.1	94.90	6 40	16.62 9	34.9	95.56	8 30	17.61 3	39.7	96.41	8 18	17.36 3	44.5	97.27	6 59	17.02 4	48.5	97.99	18 13
13.76 14	31.3	94.94	6 32	16.97 5	34.9	95.59	10 10	14.39 13	40.1	96.48	5 07	14.31 14	44.8	97.32	12 49	13.93 15	49.1	98.08	5 51
16.75 9	31.7	95.01	12 12	16.23 10	35.4	95.66	12 57	18.15 1	40.2	96.51	9 44	17.59 3	45.0	97.37	15 10	16.30 9	49.2	98.10	8 55
17.18d 1	31.8	95.04	9 47	14.60 14	35.5	95.69	14 40	7.31w 5	40.4	96.54	8 43	18.00 2	45.1	97.39	13 55	17.34 3	49.7	98.18	13 04
17.63 3	32.0	95.06	5 56	15.03 12	35.7	95.72	7 28	15.96 10	40.6	96.58	10 17	16.63 9	45.3	97.41	13 50	17.50 3	49.8	98.20	6 11
18.01 3	32.0	95.07	10 50	11.82 17	35.8	95.74	9 41	17.78 3	40.7	96.60	10 45	15.68 11	45.4	97.43	7 08	17.79 3	50.0	98.23	8 14
16.83 7	32.1	95.09	11 20	17.33 3	36.1	95.80	19 05	16.81 4	40.7	96.60	9 18	15.29 12	45.5	97.45	14 06	16.22 10	50.0	98.24	7 28
17.45 3	32.3	95.11	6 14	17.35 3	36.2	95.81	14 30	17.68 3	40.9	96.63	8 12	16.08 9	45.5	97.45	16 41	15.17 11	50.2	98.28	13 09
16.00 9	32.3	95.14	19 34	17.26 3	36.5	95.87	14 08	17.08 5	40.9	96.63	10 40	17.03 5	45.7	97.48	9 21	16.01 10	50.3	98.29	8 20
16.76 8	32.8	95.22	15 27	14.34 14	36.7	95.90	14 51	17.58 3	40.9	96.64	19 57	17.81 3	46.1	97.55	10 30	18.07 3	50.5	98.32	7 05
12.90 18	33.0	95.24	6 16	16.60 8	36.9	95.94	19 14	17.43 3	41.5	96.73	6 18	15.01 12	46.4	97.61	15 08	17.93 3	51.7	98.54	8 04
17.28 3	33.2	95.28	11 55	17.62 3	37.0	95.96	19 24	17.50 3	41.5	96.74	8 14	17.93 3	47.0	97.72	17 07	16.99 6	52.0	98.59	9 49

25 prec. + $43^s.8$, + 1′ 40″

101—160				161—220				221—280				281—340				341—357			
Mag.	α 45^m	x	$y+10'$	Mag.	α 46^m	x	$y+10'$	Mag.	α 46^m	x	$y+10'$	Mag.	α 46^m	x	$y+10'$	Mag.	α 46^m	x	$y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
13.53 17	52.1	98.61	16 57	17.12 5	8.0	1.40	11 23	16.45 8	18.3	3.21	15 29	17.52 3	33.4	5.89	6 18	17.69w 2	51	8.9	17 36
17.00 4	52.2	98.63	18 08	16.92 5	8.0	1.41	16 34	18.27 3	18.3	3.24	9 32	17.41 2	33.6	5.91	13 35	17.60 3	50.6	8.93	8 13
12.13 16	52.2	98.63	17 29	16.26 9	8.1	1.42	18 07	17.01 5	18.5	3.27	14 21	17.11 3	33.9	5.97	15 15	17.35 3	50.6	8.94	5 46
15.13 11	52.2	98.64	11 49	15.91 10	8.1	1.43	6 24	15.56 10	18.9	3.33	12 19	16.04 9	34.7	6.12	9 00	12.07 16	50.8	8.96	6 31
16.34 8	52.3	98.65	12 33	17.56 3	8.2	1.45	9 04	13.71 14	19.1	3.36	17 42	18.26 1	35.1	6.18	9 19	16.18 9	51.0	8.97	19 17
11.31 14	52.4	98.66	13 33	17.80 3	8.2	1.45	7 57	16.50 8	19.2	3.38	13 55	17.14 3	35.6	6.28	6 27	17.48 3	51.3	9.01	18 43
13.39 18	53.0	98.76	11 05	17.35 5	8.2	1.48	13 36	16.52 9	19.4	3.42	19 45	17.95w 2	36	6.3	12 24	13.44 17	51.5	9.05	16 36
16.70 8	53.0	98.77	12 57	18.04 3	8.6	1.51	6 44	15.37 11	19.6	3.45	16 46	17.40 3	35.9	6.32	16 44	17.60 3	51.7	9.09	17 24
17.94 3	53.6	98.88	19 00	11.02w 15	8.6	1.51	7 16	17.03 5	21.2	3.73	15 30	17.91w 2	36	6.4	12 12	17.45 3	51.8	9.10	15 20
16.92 6	54.0	98.94	7 11	17.10 5	8.6	1.52	12 36	15.96 10	21.2	3.75	5 03	17.31 3	36.4	6.41	5 04	16.39 9	52.3	9.20	14 25
17.21 5	54.1	98.96	13 19	17.52 4	8.7	1.53	12 27	17.28 3	21.3	3.76	6 02	16.23 9	36.5	6.42	15 28	15.76 10	52.5	9.26	6 38
17.67 3	54.6	99.05	7 02	14.90 14	8.7	1.54	11 33	15.66 10	21.4	3.76	11 49	15.11 12	36.5	6.43	13 34	13.83 14	52.8	9.28	15 01
11.77 17	55.4	99.19	10 59	17.72 3	8.8	1.55	7 07	18.01 3	21.3	3.77	8 47	16.13 9	36.7	6.46	8 07	14.64 13	52.9	9.31	14 22
17.44 3	55.8	99.26	10 30	16.62 8	8.9	1.56	15 41	16.97 5	21.7	3.81	10 19	15.51 11	36.8	6.48	14 45	18.04 1	53.2	9.36	10 58
16.81 8	56.3	99.35	12 43	17.74 3	8.9	1.57	16 09	17.78 3	22.3	3.91	19 41	15.75 10	37.1	6.53	14 50	13.37 17	53.5	9.40	15 05
15.42 12	56.6	99.40	17 15	16.88 6	9.2	1.62	18 33	16.94 8	22.7	4.00	14 24	17.64 3	37.0	6.53	9 38	16.81 5	53.8	9.49	5 46
16.46 8	56.7	99.42	9 49	17.74 3	9.5	1.69	5 09	18.01 3	22.8	4.01	18 24	15.58 10	37.2	6.56	6 45	15.56 11	54.1	9.54	9 42
14.35 14	56.8	99.43	7·31	15.03 12	9.7	1.70	18 18	17.62 3	22.8	4.02	7 54	17.53 3	37.4	6.57	19 29				
17.13 7	57.0	99.46	12 19	17.08 5	9.8	1.72	11 15	16.83 5	23.2	4.08	19 17	17.10 3	37.5	6.61	5 21				
18.09 3	57.4	99.55	16 26	17.81 3	9.8	1.73	5 08	17.12 5	23.2	4.08	10 54	17.21 3	38.0	6.68	11 45				
18.04 1	57.6	99.58	8 11	17.65 3	10.4	1.83	19 26	17.91 3	23.3	4.12	7 34	16.31 9	38.7	6.82	9 57				
14.74 13	57.7	99.60	5 11	16.53 8	10.4	1.84	10 36	17.13 3	23.3	4.12	7 19	16.19 9	39.1	6.88	14 25				
15.55 11	57.8	99.61	18 33	17.04 5	11.1	1.96	6 03	16.79 6	23.6	4.17	8 34	16.70 7	39.1	6.90	6 30				
16.67 9	57.9	99.63	17 12	17.68 3	11.1	1.97	14 48	18.01 3	23.6	4.17	9 08	17.46 3	40.0	7.05	10 38				
17.76 3	58.6	99.75	16 27	17.46 3	11.3	1.98	15 16	16.70 9	24.0	4.22	17 18	17.64 3	40.8	7.19	12 28				
15.09 12	58.6	99.75	7 39	15.12 12	11.6	2.05	9 58	17.91 3	24.2	4.27	10 05	17.09 3	41.2	7.26	9 39				
16.12 8	58.8	99.78	15 01	16.88 8	11.7	2.06	7 18	18.04 3	24.4	4.28	16 00	16.77 5	41.9	7.39	5 14				
16.76 9	58.9	99.81	8 23	**9.71w 10**	**11.8**	**2.07**	**12 23**	17.91 3	24.4	4.30	9 59	12.37 17	42.0	7.40	7 22				
11.79 15	59.1	99.84	18 37	17.27 5	12.1	2.13	14 20	17.82 3	24.4	4.31	8 50	15.97 8	42.4	7.45	16 40				
17.86 3	59.2	99.86	13 37	16.78 7	12.3	2.16	5 45	17.53 3	25.0	4.42	9 49	16.39 9	42.9	7.55	11 23				
17.59 2	59.2	99.87	17 16	15.12 11	12.5	2.20	17 36	17.09 5	25.1	4.42	12 15	16.45 9	43.9	7.72	16 21				
14.27 12	59.6	99.93	13 32	16.71 5	12.9	2.27	16 02	16.88 7	25.1	4.42	18 05	17.24 3	44.2	7.77	19 09				
15.66 10	59.8	99.97	15 52	17.90w 2	13	2.3	16 18	17.86 3	25.7	4.54	9 45	17.31 2	44.3	7.82	9 39				
15.87 10	59.9	99.98	17 46	17.86 3	13.3	2.34	15 43	17.37 3	25.9	4.56	12 03	16.54 9	45.0	7.92	14 04				
18.36 1	60.2	0.03	7 45	18.09 3	13.4	2.36	7 03	17.93 1	27.3	4.80	15 25	16.64 6	45.0	7.94	8 30				
18.12 3	60.4	0.06	10 20	15.66 10	13.6	2.38	16 48	18.03 3	27.4	4.84	7 22	17.33 3	45.2	7.94	16 53				
18.36 1	60.6	0.10	18 34	16.85 5	13.8	2.43	6 40	18.26 1	27.5	4.85	12 19	17.52 3	45.6	8.04	9 59				
15.67 11	61.1	0.20	7 23	17.71 3	14.7	2.59	16 03	16.32 9	27.8	4.88	15 18	16.84 5	45.7	8.06	8 57				
17.09 5	61.3	0.23	16 16	18.47 1	14.9	2.62	12 13	18.01 3	28.2	4.96	9 20	17.71 3	46.4	8.15	18 16				
15.74 10	61.9	0.33	10 21	18.36 1	15.4	2.71	11 28	17.91 3	28.5	5.02	1412	15.43 11	46.3	8.15	11 28				
17.60 3	62.6	0.47	16 20	17.80 3	15.4	2.71	11 56	13.73 16	29.5	5.20	9 02	15.60 11	46.4	8.16	14 07				
17.12 7	63.6	0.62	13 27	17.36 3	15.4	2.71	10 19	17.60 3	29.7	5.21	15 50	13.99 15	46.3	8.17	7 13				
17.86 3	63.8	0.67	14 22	17.43 3	15.5	2.72	18 09	17.66 3	29.7	5.22	19 37	17.06 5	46.8	8.23	15 06				
18.18 3	63.9	0.68	14 58	17.32 3	15.5	2.74	8 49	16.37 9	29.7	5.24	6 30	16.09 9	46.9	8.25	19 18				
17.09 8	64.4	0.78	13 16	17.14 5	15.7	2.75	16 52	14.50 14	29.8	5.25	8 26	16.40 9	46.9	8.27	9 02				
17.82 3	64.8	0.82	5 30	18.36 1	16.1	2.83	11 36	17.98 3	30.3	5.35	6 43	15.36 12	46.9	8.27	14 28				
16.69 7	65.0	0.88	19 14	18.02 3	16.4	2.88	15 15	16.76 7	30.6	5.40	8 00	15.81 10	47.3	8.32	16 35				
17.22 5	65.0	0.89	9 35	17.28 3	16.4	2.89	10 17	17.14 3	30.7	5.40	18 55	14.75 11	47.4	8.34	18 05				
16.87 8	65.4	0.95	6 19	16.96w 4	16	2.9	8 54	18.04 3	31.3	5.52	11 31	16.15 9	47.5	8.39	6 14				
17.48 3	65.7	1.01	12 20	16.61 9	16.5	2.90	17 47	16.18 10	31.4	5.54	6 39	16.45 9	48.4	8.51	18 12				
17.37 3	65.9	1.03	16 36	16.21 9	16.6	2.94	6 38	17.29 3	31.7	5.58	9 09	17.79 3	48.6	8.54	17 22				
17.85 3	65.9	1.05	5 28	16.73* 1	17.0	3.00	11 36	16.87 8	32.2	5.66	10 40	17.43 3	48.4	8.54	8 55				
14.78 13	66.1	1.06	17 42	18.36 1	17.2	3.04	7 25	16.72 7	32.3	5.69	17 28	16.62 7	49.1	8.64	19 31				
17.66 3	66.1	1.06	18 03	16.56 8	17.6	3.10	8 09	17.38 3	32.4	5.70	15 56	17.45 3	49.1	8.66	5 36				
17.92 3	66.4	1.12	16 08	17.66 3	17.6	3.10	5 39	15.71 8	32.5	5.72	18 19	17.22 3	49.4	8.71	7 29				
17.18 1	66.3	1.12	7 15	15.11 12	17.7	3.12	6 58	17.85 3	32.4	5.72	8 46	17.09 3	49.6	8.73	12 50				
17.72 3	66.6	1.16	8 34	13.41 18	17.9	3.15	16 28	16.84 6	32.7	5.77	14 45	17.89 3	49.9	8.78	13 55				
16.20 9	66.7	1.19	11 31	17.81 3	18.0	3.18	9 52	16.65 9	32.9	5.80	8 36	16.06 8	50.2	8.82	17 59				
17.65 3	66.8	1.20	7 01	17.91w 2	18	3.2	19 12	17.42 3	32.9	5.80	5 45	16.49 7	50.2	8.83	18 07				
17.14 4	67.2	1.27	8 32	16.56 8	18.2	3.20	14 23	16.82 7	33.3	5.85	15 16	17.74 3	50.3	8.86	6 49				

25 prec. + $43^{s}.8$, + 1′ 41″

18^h Area 38. Supplementary Stars $+45°$

1s—60s					61s—120s					121s—180s					181s—237s				
Mag.		α 45^m	x	$y+10'$	Mag.		α 45^m	x	$y+10'$	Mag.		α 46^m	x	$y+10'$	Mag.		α 46^m	x	$y+10'$
		s	′	′			s	′	′			s	′	′			s	′	′
13.76	11	8	90.8	10.4	16.55	6	31	94.8	4.4	16.85	5	13	2.4	20.5	16.30	8	52	9.2	20.8
12.69	14	8	90.9	11.8	16.31	8	31	94.9	21.0	16.36	8	14	2.5	2.9	17.65	2	55	9.7	4.0
16.42	5	9	91.0	14.4	14.25	12	35	95.6	3.5	16.39	8	15	2.6	2.6	16.82	3	56	9.8	10.1
15.72	8	9	91.1	11.0	16.16	8	36	95.7	4.1	13.74	14	15	2.7	23.6	17.66	2	56	9.8	12.4
16.43	8	11	91.3	12.6	17.48	2	36	95.7	4.7	17.66	2	16	2.8	2.3	17.76	2	56	9.8	15.9
16.43	8	12	91.5	15.2	15.33	9	38	96.2	4.5	17.73	2	16	2.8	2.6	13.89	13	55	9.8	19.2
14.32	9	14	91.8	8.2	16.56	5	40	96.4	2.6	17.58	2	16	2.8	23.4	16.33	4	56	9.8	19.3
15.54	9	14	91.9	12.2	16.62	6	40	96.4	20.3	15.29	9	17	2.9	22.7	14.59	11	57	10.0	5.4
17.61	2	14	92.0	9.8	13.78	15	40	96.4	20.6	17.56	2	17	3.0	3.4	17.69	2	57	10.0	15.6
15.55	8	15	92.1	15.3	17.46	2	41	96.7	21.4	16.70	4	17	3.0	3.8	17.51	2	57	10.1	7.8
16.35	8	16	92.2	10.0	17.69	2	42	96.8	22.4	17.59	2	18	3.2	3.1	17.54	2	57	10.1	11.1
17.46	2	17	92.4	8.2	17.09	2	43	97.0	2.6	12.27	14	18	3.2	3.5	15.53	7	58	10.2	5.0
16.42	8	17	92.4	13.9	15.83	8	45	97.4	22.1	17.27	2	18	3.2	5.0	17.70	2	58	10.3	8.5
16.17	8	17	92.4	15.3	16.10	8	46	97.6	21.4	15.27	9	18	3.2	23.7	15.51	9	59	10.3	14.2
17.61	2	17	92.5	15.0	14.49	12	47	97.7	2.8	17.19	2	20	3.4	2.6	15.87	8	59	10.4	14.4
17.76	2	19	92.7	9.3	16.40	8	48	97.8	3.8	15.85	8	21	3.6	1.2	17.35	2	59	10.4	18.8
16.13	8	20	92.9	13.5	17.19	2	48	97.9	21.4	17.56	2	22	3.8	1.6	13.35	15	60	10.6	20.2
16.81	4	20	92.9	14.0	17.44	2	49	98.0	22.6	15.40	9	22	3.8	4.8	16.25	8	61	10.7	17.4
17.54	2	20	92.9	19.0	16.38	8	49	98.0	22.9	15.26	9	21	3.8	21.6	15.44	9	61	10.8	9.7
17.24	2	20	93.0	6.0	17.39	2	49	98.1	21.7	13.43	16	22	3.9	22.6	12.56	16	61	10.8	12.6
16.47	8	20	93.0	8.2	15.94	8	50	98.2	3.1	17.35	2	23	4.1	20.9	17.46	2	62	10.9	7.0
17.76	2	20	93.0	14.5	16.47	6	50	98.2	22.0	16.25	8	24	4.2	4.4	15.00	10	62	10.9	11.7
17.61	2	20	93.0	15.2	17.41	2	50	98.3	22.7	16.32	8	24	4.2	22.4	17.02	2	62	10.9	12.0
14.51	12	20	93.0	15.4	16.42	8	51	98.4	4.0	16.12	8	25	4.4	2.3	16.88	4	62	11.0	12.7
17.35	2	20	93.0	17.0	15.11	10	51	98.4	4.6	15.09	10	25	4.4	4.2	17.61	2	62	11.0	15.2
12.47	15	21	93.1	11.2	16.12	8	52	98.6	23.0	16.73	4	27	4.7	2.8	17.65	2	63	11.1	13.6
14.82	11	21	93.2	14.8	15.99	8	53	98.8	1.6	15.93	8	27	4.8	23.0	11.39	14	63	11.1	14.7
17.46	2	21	93.2	19.2	17.52	2	55	99.1	2.7	17.78	2	28	4.9	3.6	17.65	2	64	11.2	9.1
15.45	8	21	93.2	19.5	17.65	2	55	99.2	2.3	14.85	11	28	4.9	22.5	17.67	2	64	11.2	16.4
15.00	10	22	93.3	7.1	17.43	2	56	99.2	3.2	17.59	2	28	4.9	23.3	16.36	8	64	11.2	17.4
17.45	2	22	93.3	10.0	15.06	10	55	99.2	21.8	16.58	3	28	5.0	22.2	13.73	14	64	11.3	14.4
17.73	2	22	93.3	14.7	17.29	2	56	99.2	22.0	16.68	5	29	5.1	3.4	14.97	10	65	11.4	16.4
14.50	11	23	93.4	6.8	16.83	4	57	99.4	4.1	16.51	6	31	5.5	2.9	15.80	7	65	11.5	8.3
16.48	8	23	93.4	8.0	17.09	2	58	99.6	21.8	16.32	8	32	5.6	21.0	15.89	8	66	11.6	6.4
16.47	8	23	93.4	10.4	17.43	2	58	99.6	22.3	16.43	8	32	5.7	4.4	16.24	8	66	11.6	17.6
16.63	6	22	93.4	12.0	16.26	7	59	99.8	20.2	15.02	10	33	5.8	20.5	15.55	9	66	11.7	15.6
16.08	8	23	93.5	11.8	16.08	8	59	99.9	23.6	17.54	2	34	5.9	22.7	16.74	4	67	11.8	13.7
17.14	2	24	93.6	15.6	16.33	8	60	0.0	1.3	12.06	13	34	6.0	4.7	16.61	5	68	12.0	9.3
15.74	8	24	93.6	18.7	16.33	8	60	0.0	2.5	16.36	8	34	6.0	22.6	16.35	8	68	12.0	10.2
14.64	11	24	93.6	19.7	16.41	8	60	0.0	4.0	15.93	8	35	6.2	21.8	17.61	2	69	12.1	10.4
16.45	8	25	93.8	11.3	16.32	8	60	0.0	20.6	16.08	8	35	6.2	22.0	16.28	8	69	12.1	13.4
14.97	10	24	93.8	18.5	16.28	8	61	0.2	22.2	17.83	2	36	6.3	4.6	17.46	2	69	12.2	7.1
17.46	2	25	93.8	19.6	17.55	2	64	0.6	1.6	17.78	2	37	6.6	4.7	14.80	11	69	12.2	7.8
16.28	8	25	93.9	9.1	16.06	8	63	0.6	21.2	16.79	4	37	6.6	20.6	15.82	8	70	12.2	11.8
17.19	2	26	94.0	13.0	17.68	2	64	0.7	3.2	15.25	9	38	6.8	4.2	12.79	15	69	12.2	13.5
14.71	11	26	94.0	13.2	17.53	2	65	0.8	2.0	17.60	2	40	7.0	20.3	13.77	13	69	12.2	17.2
16.59	6	26	94.0	17.9	16.50	8	65	0.8	3.0	17.56	2	42	7.3	21.6	16.21	8	70	12.3	8.1
13.32	16	27	94.2	5.6	17.73	2	66	1.0	3.3	17.46	2	42	7.4	3.6	16.15	8	71	12.4	12.8
16.69	3	27	94.2	6.0	16.65	8	66	1.0	4.2	16.33	8	44	7.7	3.6	16.53	6	70	12.4	13.2
17.69	2	27	94.2	11.1	17.09	2	66	1.1	4.5	17.64	2	44	7.8	20.9	15.60	9	71	12.5	12.7
17.55	2	28	94.3	7.7	16.42	8	66	1.1	23.0	16.26	8	44	7.8	21.4	17.30	2	71	12.5	15.4
16.28	8	28	94.3	7.8	16.68	7	67	1.2	4.1	15.01	10	45	7.9	20.3	17.13	2	71	12.6	16.3
17.56	2	28	94.3	16.0	16.37	8	69	1.6	21.1	16.48	6	46	8.0	4.7	12.17	14	75	13.2	10.4
15.63	9	28	94.4	8.3	16.41	8	69	1.6	23.3	13.85	14	46	8.2	21.7	13.88	12	75	13.2	12.0
17.23	2	28	94.4	13.4	17.78	2	70	1.7	3.0	16.09	8	48	8.4	3.3	16.28	8	75	13.2	14.4
10.76	10	28	94.4	16.6	17.73	2	70	1.8	22.0	16.48	6	49	8.6	4.6	17.63	2	75	13.2	14.6
16.05	8	28	94.4	17.6	17.05	2	72	2.1	21.7	17.07	2	49	8.6	21.4	16.35	8	75	13.3	11.8
16.25	8	29	94.6	5.8	17.69	2	72	2.1	22.0	17.45	2	50	8.7	21.2					
17.34	2	29	94.6	12.1	16.53	8	73	2.2	20.4	16.47	6	52	9.1	21.1					
17.88	2	29	94.6	12.6	16.52	6	72	2.2	22.9	16.54	4	52	9.2	4.8					

25 prec. + $4^s.8$, + 1′ 40″

Area 39. Center for 1900: $19^h\,47^m + 44° 50'$ $(15' \times 15')$

1—60					61—120					121—180					181—240					241—300				
Mag.		α 46^m	x	$y+50'$	Mag.		α 46^m	x	$y+50'$	Mag.		α 46^m	x	$y+50'$	Mag.		α 46^m	x	$y+50'$	Mag.		α 46^m	x	$y+50'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
15.78	8	9.2	91.02	58 27	17.69	3	14.0	91.85	46 25	17.59	3	18.5	92.65	51 40	16.88	7	23.1	93.46	50 26	17.01	7	27.6	94.25	53 56
16.50	8	9.2	91.02	55 15	17.78	2	14.1	91.86	53 34	18.05	1	18.5	92.65	48 50	16.80	7	23.2	93.48	56 01	17.94	3	27.5	94.25	55 26
17.76	3	9.3	91.02	49 05	16.32	8	14.1	91.88	58 39	17.93	3	18.6	92.66	52 39	17.52	3	23.2	93.49	55 51	16.98	6	27.7	94.27	54 48
17.44	3	9.4	91.05	56 24	18.10	1	14.4	91.91	53 13	17.68	3	18.6	92.66	54 20	16.64	7	23.2	93.49	46 18	18.05	1	27.8	94.28	47 58
17.64	1	9.7	91.08	45 02	18.00	1	14.3	91.92	59 58	17.50	3	18.6	92.66	54 27	14.39	13	23.3	93.50	57 13	16.83	7	28.2	94.36	55 37
16.76	6	9.7	91.08	49 43	16.59	5	14.5	91.93	54 21	16.45	8	18.7	92.68	59 59	16.83	7	23.4	93.51	50 42	17.31	3	28.3	94.38	53 34
17.67	3	9.8	91.10	52 06	16.91	7	14.5	91.95	57 07	18.05	1	18.8	92.70	53 30	16.99	6	23.4	93.53	55 32	15.81	8	28.3	94.38	45 39
15.87	7	9.9	91.11	48 35	17.39	3	14.5	91.95	56 58	17.70	3	18.9	92.73	56 00	17.94	2	23.5	93.54	55 13	17.52	3	28.5	94.42	46 30
17.80	3	9.9	91.12	53 04	15.58	8	14.6	91.96	58 47	17.71	3	19.1	92.75	51 14	15.78	7	23.5	93.54	48 04	16.92	6	28.5	94.42	49 08
17.54	3	9.8	91.12	58 35	16.74	7	14.7	91.96	47 20	16.88	6	19.3	92.80	55 53	17.62	3	23.7	93.56	54 01	17.73	3	28.5	94.43	57 34
17.68	3	9.8	91.12	57 35	17.79	3	14.7	91.98	59 13	17.75	3	19.5	92.82	54 05	17.80	3	23.7	93.57	48 40	16.91	7	28.6	94.43	53 25
17.80	3	10.0	91.13	53 55	16.08	8	14.7	91.98	57 41	18.00	1	19.5	92.84	59 03	16.77	7	23.8	93.58	49 20	17.43	3	28.6	94.44	51 26
16.70	7	9.9	91.14	58 30	15.67	8	14.8	91.99	48 38	15.80	7	19.7	92.85	54 38	14.36	12	23.8	93.59	51 13	17.75	3	28.6	94.44	54 48
17.94	1	10.1	91.15	45 53	11.13w	15	14.8	91.99	49 05	16.81	7	19.7	92.85	48 56	17.87	3	23.8	93.60	57 01	17.91	3	28.6	94.45	59 33
15.47	10	10.1	91.16	55 27	18.05	1	14.9	92.01	56 42	17.33	3	19.8	92.88	58 45	17.82	2	23.9	93.60	47 05	16.83	7	28.7	94.46	58 44
17.94	1	10.3	91.19	45 33	16.89	7	15.0	92.03	56 28	18.09	2	20.0	92.90	50 03	14.32	12	23.9	93.61	56 12	17.62	3	28.9	94.48	54 50
16.31	8	10.4	91.20	49 27	14.64:	1	15.1	92.04	50 28	17.84	3	20.0	92.90	50 24	17.93	3	24.1	93.63	53 26	15.94	8	28.9	94.49	50 48
16.50	8	10.4	91.21	51 07	16.51	7	15.1	92.05	51 58	17.82	2	20.0	92.91	56 30	17.95	3	24.0	93.64	58 27	16.12	8	28.9	94.50	56 34
16.50	7	10.4	91.22	58 19	18.00	1	15.1	92.05	47 05	18.10	1	20.1	92.93	57 07	17.75	3	24.4	93.69	53 10	17.70	3	29.0	94.51	55 57
16.34	8	10.6	91.24	48 11	15.45	8	15.3	92.09	52 53	16.81	5	20.1	92.93	50 38	17.83	3	24.5	93.71	50 06	17.70	3	29.0	94.51	57 54
16.41	8	10.7	91.26	45 02	16.20	8	15.4	92.11	59 31	17.66	2	20.2	92.94	51 18	15.29	10	24.6	93.72	50 39	18.05	1	29.2	94.54	47 26
16.84	7	10.7	91.26	53 05	16.17	8	15.5	92.13	55 08	17.69	3	20.3	92.96	47 01	17.77	3	24.6	93.73	56 15	16.30	7	29.3	94.57	56 13
16.71	7	10.7	91.26	51 25	18.05	1	15.7	92.15	51 06	18.05	1	20.3	92.96	48 14	16.70	8	24.8	93.76	53 33	16.00	8	29.3	94.57	54 23
17.82	2	10.7	91.29	59 02	17.33	3	15.7	92.15	46 14	17.68	3	20.3	92.97	49 24	17.83	3	24.8	93.76	48 42	18.15	1	29.4	94.58	53 32
15.75	8	10.8	91.29	48 47	17.60	3	15.7	92.15	46 11	17.73	2	20.3	92.97	51 57	16.38	8	24.9	93.78	48 33	18.20	1	29.4	94.58	53 27
17.83	3	11.2	91.35	47 43	16.63	7	15.8	92.16	54 09	18.00	1	20.6	93.02	49 43	15.74	8	25.0	93.80	48 17	15.91	8	29.4	94.58	50 31
17.79	3	11.2	91.36	57 49	16.74	7	15.8	92.17	49 40	18.15	1	20.6	93.02	53 08	16.88	7	25.1	93.82	57 55	16.70	7	29.4	94.59	51 47
17.59	2	11.4	91.38	45 06	15.24	11	15.8	92.18	55 36	16.71	7	20.7	93.04	47 20	17.89	2	25.1	93.83	56 18	17.53	3	29.4	94.59	51 01
17.71	3	11.6	91.41	51 32	16.75	6	15.9	92.19	50 02	17.73	3	20.9	93.07	48 19	17.77	3	25.4	93.87	47 32	17.96	3	29.5	94.60	54 28
17.72	3	11.5	91.42	59 45	16.80	7	16.3	92.26	57 36	16.81	6	20.9	93.07	48 29	16.20	8	25.5	93.88	47 29	17.69	3	29.6	94.61	53 56
16.06	8	11.7	91.45	57 20	14.81	11	16.4	92.27	53 33	17.65	3	20.9	93.07	51 45	17.66	3	25.5	93.89	53 31	16.84	7	29.6	94.62	53 44
14.93	10	11.8	91.45	46 37	17.71	2	16.6	92.31	53 10	16.20	8	20.7	93.07	58 19	17.89	1	25.4	93.89	58 47	18.15	1	29.7	94.63	52 27
15.22	9	11.9	91.46	53 53	14.72	12	16.6	92.31	54 29	16.95	6	20.7	93.07	55 19	16.45	8	25.4	93.89	57 56	15.32	11	29.7	94.64	47 57
17.78	3	11.9	91.47	49 54	17.82	3	16.6	92.31	59 23	16.38	6	20.8	93.08	57 15	17.55	3	25.7	93.91	46 19	17.62	3	29.9	94.67	51 16
16.62	7	11.9	91.48	57 44	14.12	12	16.6	92.31	57 58	15.21	11	21.1	93.10	49 02	17.93	2	25.8	93.93	54 51	17.01	7	29.9	94.67	50 59
17.83	3	11.9	91.49	59 00	17.71	3	16.7	92.32	54 03	16.52	7	21.1	93.10	46 27	17.67	3	26.0	93.96	54 57	15.74	8	29.9	94.67	45 02
17.92	2	12.1	91.52	58 50	17.29	3	16.8	92.35	45 54	16.80	6	21.1	93.11	48 31	17.69	3	26.0	93.96	47 28	17.68	2	30.0	94.68	48 39
16.77	7	12.1	91.52	58 11	17.41	3	16.9	92.37	46 59	17.73	3	21.1	93.12	55 30	18.15	1	26.0	93.97	51 31	18.10	1	30.0	94.68	49 29
16.31	8	12.3	91.56	58 06	14.59	13	17.0	92.38	54 19	16.92	6	21.2	93.14	55 38	16.96	7	26.0	93.98	56 21	16.62	8	30.3	94.74	51 49
15.04	10	12.3	91.57	58 27	17.41	3	17.0	92.38	59 42	17.67	3	21.3	93.14	46 02	16.81	7	26.2	94.01	50 20	15.77	8	30.3	94.74	55 44
17.72	3	12.4	91.58	59 22	16.82	5	17.1	92.40	47 03	16.36	8	21.4	93.15	45 50	17.84	2	26.3	94.02	47 39	17.63	3	30.3	94.74	57 50
17.79	3	12.7	91.61	48 47	11.13w	14	17.2	92.41	50 01	16.27	8	21.4	93.16	52 42	16.61	7	26.3	94.03	55 50	17.79	3	30.3	94.74	57 35
16.00	8	12.8	91.63	54 56	16.69	7	17.3	92.44	48 26	16.75	3	21.5	93.19	51 59	17.90	2	26.4	94.04	53 30	16.44	8	30.5	94.77	47 57
17.91	3	12.7	91.64	55 38	16.50	7	17.5	92.48	58 48	16.81	7	21.6	93.20	54 17	17.62	3	26.3	94.04	55 29	17.91	2	30.8	94.82	52 34
17.92	3	12.9	91.65	51 42	14.93	11	17.5	92.49	58 05	17.47	3	21.7	93.22	59 22	15.50	9	26.5	94.06	59 24	16.87	7	30.8	94.82	51 34
15.45	8	13.0	91.66	48 18	18.10	1	17.6	92.49	51 56	16.00	8	21.8	93.25	56 49	18.15	1	26.5	94.07	50 58	18.05	1	30.8	94.83	47 40
17.70	2	13.0	91.67	47 06	16.78w	2	18	92.5	50 06	17.98	2	21.9	93.25	53 20	16.90	7	26.7	94.10	50 01	17.85	3	30.8	94.83	48 48
17.91	3	13.1	91.68	49 01	16.69	7	17.7	92.52	58 38	16.68	5	22.0	93.27	46 34	17.42	2	26.7	94.10	55 02	14.46	11	30.8	94.84	59 29
17.91	3	13.0	91.68	58 42	16.69	7	17.9	92.53	50 10	17.86	2	22.1	93.28	54 49	18.10	1	26.8	94.12	50 21	16.99	7	31.0	94.86	51 05
14.49	13	13.1	91.69	50 38	17.38	2	17.8	92.54	59 36	17.96	3	22.0	93.28	56 01	18.05	1	26.8	94.12	46 49	17.31	3	31.2	94.90	53 00
17.94	1	13.1	91.69	45 43	16.73	5	17.9	92.55	59 34	17.80	3	22.3	93.33	58 29	15.08	9	26.9	94.14	46 04	17.10	7	31.2	94.90	56 01
17.70	2	13.1	91.69	48 09	16.79	7	18.0	92.56	58 10	15.95	8	22.3	93.34	59 53	17.49	3	27.0	94.15	48 39	17.71	3	31.4	94.94	45 22
17.89	3	13.3	91.72	52 17	17.87	3	18.1	92.57	53 33	18.02	3	22.4	93.35	58 07	17.96	2	27.3	94.20	54 42	16.33	8	31.4	94.94	45 16
17.54	3	13.2	91.72	56 04	17.40	2	18.2	92.58	48 18	17.97	3	22.6	93.36	54 47	18.05	1	27.4	94.21	50 32	16.34	8	31.5	94.95	49 47
18.05	1	13.4	91.73	52 08	16.35	8	18.2	92.59	49 24	16.82	7	22.6	93.38	58 48	16.56	7	27.3	94.21	56 27	17.82	2	31.6	94.96	47 47
17.45	3	13.4	91.73	52 02	13.99	16	18.2	92.59	53 43	17.96	3	22.8	93.41	58 30	15.91	8	27.3	94.22	55 06	17.53	3	31.6	94.96	53 0
16.09	8	13.5	91.75	48 54	15.93	8	18.4	92.62	47 42	16.69	7	22.8	93.41	57 42	16.92	7	27.4	94.22	51 19	18.15	1	31.5	94.96	56 3
17.63	3	13.7	91.78	51 31	13.73	14	18.4	92.63	51 56	15.08	10	22.9	93.42	45 01	18.10	1	27.5	94.23	50 13	18.05	1	31.5	94.96	58 5
17.34	3	13.7	91.78	47 30	15.96	8	18.4	92.63	56 59	17.81	2	22.9	93.43	53 02	18.05	1	27.5	94.24	49 21	18.05	1	31.6	94.97	48 2
17.61	2	13.7	91.79	46 15	16.43	8	18.5	92.65	57 27	18.10	1	23.0	93.44	50 05	17.78	3	27.6	94.25	46 33	17.60	3	31.6	94.97	51 3

25 prec. + $47^s.0$, + 3′ 44

301—360			
Mag.	α 46^{m}	x	$y+50'$
	s	′	′ ″
17.80 3	31.7	95.00	57 50
16.70 8	31.8	95.00	52 30
17.37 3	31.9	95.01	45 51
17.82 3	31.8	95.02	55 30
16.88 7	32.0	95.05	59 38
17.86 2	32.1	95.05	52 10
15.03 11	32.3	95.08	51 37
15.50 9	32.3	95.08	54 58
17.66 2	32.2	95.08	56 03
17.76 3	32.2	95.09	59 20
18.20 1	32.3	95.09	52 50
11.19w 14	32.4	95.10	46 19
17.62 3	32.5	95.12	51 50
16.53 8	32.4	95.12	57 04
16.27 8	32.5	95.13	59 10
16.97 7	32.6	95.15	51 11
17.01 7	32.7	95.17	53 42
17.89 2	32.8	95.18	56 02
17.89 3	32.8	95.19	48 16
17.43w 2	33	95.2	46 24
17.71 3	33.2	95.25	47 38
17.63 3	33.3	95.27	46 28
15.38 10	33.2	95.27	57 51
18.15 1	33.3	95.28	56 54
17.94 2	33.3	95.29	57 56
18.10 1	33.4	95.29	48 54
16.10 8	33.5	95.31	59 04
17.95 3	33.8	95.36	58 37
17.60 3	33.9	95.38	59 51
17.52 3	34.1	95.41	59 24
17.96 2	34.1	95.41	53 28
18.10 1	34.1	95.41	48 46
17.12 3	34.3	95.45	52 40
15.08 10	34.3	95.45	50 35
16.98 7	34.5	95.49	56 14
16.92 7	34.7	95.51	48 59
18.20 1	34.7	95.53	55 04
17.89 3	34.8	95.54	55 10
15.26 8	34.8	95.54	45 36
17.68 3	34.9	95.55	45 20
16.74 7	35.0	95.56	45 53
16.66 8	35.0	95.57	52 35
17.33 3	35.1	95.58	51 30
16.51 8	35.1	95.58	47 45
16.12 8	35.1	95.58	49 19
15.26 10	35.3	95.61	47 02
18.15 1	35.2	95.61	50 32
16.96: 1	35.3	95.63	54 05
18.17 2	35.3	95.63	58 35
16.10 7	35.3	95.64	57 21
18.06 2	35.4	95.65	53 28
17.73 3	35.5	95.66	51 48
17.91 2	35.5	95.66	52 52
17.75 2	35.5	95.67	54 37
17.86 2	35.6	95.69	52 34
17.48 2	35.6	95.69	54 17
18.10 1	35.6	95.69	59 29
17.96 3	35.8	95.71	46 41
16.20 8	35.9	95.74	58 37
14.53 13	36.0	95.75	59 51

361—420			
Mag.	α 46^{m}	x	$y+50'$
	s	′	′ ″
17.02 7	36.0	95.75	56 38
16.88 7	36.1	95.76	56 54
16.86 7	36.2	95.78	57 20
17.79 3	36.2	95.79	45 13
17.85 3	36.5	95.83	54 35
18.00 3	36.6	95.85	50 19
16.86 7	36.6	95.85	48 50
16.18 8	36.6	95.86	58 35
17.64 3	36.7	95.87	54 16
17.94 2	36.8	95.89	50 16
17.13 5	37.0	95.93	52 51
14.71 13	37.0	95.93	56 46
16.07 8	37.2	95.97	58 43
18.20 1	37.2	95.97	52 44
17.45 3	37.2	95.97	48 34
16.48 8	37.6	96.04	45 59
17.74 2	37.6	96.04	52 05
17.17 7	37.6	96.04	55 05
18.08 2	37.9	96.08	56 46
14.85 10	37.9	96.09	52 16
17.95 3	38.0	96.10	46 59
17.41 3	38.0	96.11	58 36
18.20 1	38.1	96.12	56 22
17.25 6	38.1	96.12	54 04
16.99 7	38.1	96.12	51 07
17.95 3	38.1	96.13	59 12
18.10 1	38.2	96.15	59 38
16.85 7	38.5	96.18	49 07
17.86 2	38.6	96.20	49 30
16.35: 1	38.7	96.23	55 23
16.13 8	38.8	96.25	47 35
17.76 3	38.9	96.27	49 53
16.54 7	38.9	96.27	55 29
17.93 2	39.0	96.29	56 46
15.23 10	39.0	96.29	59 51
17.09 6	39.0	96.30	57 01
17.07 6	39.3	96.33	57 16
17.68 2	39.3	96.34	54 42
17.73 3	39.3	96.34	47 44
16.40 7	39.3	96.34	49 10
17.88 3	39.4	96.35	47 23
17.08 7	39.4	96.35	54 52
17.05 7	39.4	96.35	51 15
17.66 3	39.6	96.38	58 57
16.36 8	39.7	96.40	55 23
17.77 3	39.7	96.40	53 12
17.00 7	39.7	96.41	57 35
17.91 2	39.8	96.43	57 04
18.00 1	40.0	96.45	51 02
17.18 7	40.1	96.47	51 58
16.94 6	40.2	96.48	49 14
16.81 7	40.3	96.51	51 26
16.95 7	40.4	96.53	56 11
17.74 2	40.5	96.55	53 50
17.46 3	40.6	96.56	53 06
15.74 8	40.6	96.56	56 25
17.66 3	40.6	96.57	55 29
17.08 6	40.7	96.58	56 57
18.24 1	40.7	96.59	53 52
17.73 2	40.8	96.60	58 50

421—480			
Mag.	α 46^{m}	x	$y+50'$
	s	′	′ ″
15.24 10	41.0	96.64	47 05
14.63 12	41.1	96.65	47 49
14.46 13	41.1	96.65	54 51
18.04 2	41.2	96.66	58 13
17.68 2	41.3	96.68	49 20
17.87 3	41.3	96.69	45 48
17.80 2	41.4	96.71	59 59
17.78 2	42.1	96.82	51 03
16.19 8	42.1	96.82	46 41
17.67 3	42.4	96.88	46 54
15.30 10	42.4	96.88	49 01
17.98 2	42.4	96.89	56 06
16.98 7	42.6	96.92	55 39
17.01 5	42.6	96.92	53 20
14.49 13	42.6	96.92	51 03
16.98 3	42.7	96.93	51 00
17.86 2	42.7	96.93	50 20
17.71 2	42.9	96.96	49 16
17.50 3	42.9	96.96	47 03
15.82 8	42.8	96.97	56 41
18.15 1	42.8	96.97	57 56
17.24 6	42.9	96.98	55 23
16.63 7	42.9	96.98	58 11
17.63 3	43.1	97.02	59 16
16.76 7	43.5	97.08	59 48
16.89 7	43.5	97.09	55 09
18.20 1	43.6	97.10	51 58
17.79 3	43.7	97.12	46 33
16.33 8	43.7	97.12	47 20
17.98 2	43.7	97.12	56 04
16.87 7	43.8	97.13	58 53
16.17 8	43.8	97.13	59 38
17.74* 1	43.8	97.14	55 38
16.91 7	43.8	97.14	48 56
18.15 1	43.8	97.15	51 16
18.12 2	43.9	97.17	52 48
16.48 1	44.1	97.18	55 39
12.94 16	44.1	97.19	57 09
16.12 8	44.3	97.23	59 49
17.76 2	44.4	97.23	54 20
18.15 1	44.4	97.24	49 59
17.73 3	44.7	97.28	46 37
17.95 3	44.7	97.29	48 20
16.00 7	44.8	97.31	58 19
17.09 6	44.9	97.33	50 32
18.15 1	44.9	97.33	50 16
17.86 2	45.0	97.35	47 48
16.98 6	45.1	97.36	48 54
15.10 8	45.1	97.36	54 13
18.00 1	45.3	97.40	45 48
16.57 8	45.3	97.40	59 59
17.98 2	45.4	97.41	57 43
17.86 2	45.4	97.41	51 34
17.03 7	45.5	97.44	58 30
16.43 8	45.5	97.44	53 09
16.97 7	45.6	97.45	49 46
14.89 11	45.8	97.49	45 03
18.09 2	45.8	97.49	52 34
17.85 3	45.8	97.49	54 22
13.38 17	45.9	97.50	59 05

481—540			
Mag.	α 46^{m}	x	$y+50'$
	s	′	′ ″
17.14 5	46.0	97.52	51 36
18.16 2	46.2	97.55	52 24
17.88 2	46.3	97.56	54 58
18.15 1	46.2	97.57	57 22
16.69 7	46.3	97.58	56 11
14.43 13	46.4	97.58	46 09
16.52 8	46.3	97.59	55 03
16.93 8	46.6	97.63	51 42
17.54 2	46.7	97.65	52 10
17.25 7	46.8	97.67	55 17
18.08 2	46.8	97.67	57 23
18.24 1	46.9	97.68	52 52
18.11 2	47.1	97.71	56 19
17.26 7	47.1	97.71	53 29
16.96 7	47.1	97.72	54 12
17.26 6	47.2	97.73	52 16
16.85 7	47.2	97.74	59 59
16.64 7	47.2	97.74	45 41
17.37 5	47.3	97.75	54 44
18.08 2	47.4	97.76	51 51
17.25 7	47.4	97.76	52 49
17.17 6	47.5	97.78	52 31
17.07 7	47.7	97.81	52 06
16.74 7	47.7	97.82	59 05
17.98 2	47.7	97.83	57 21
18.22 2	47.8	97.84	53 26
18.15 1	47.9	97.85	50 45
16.92 7	47.9	97.85	47 50
17.68 3	48.0	97.86	48 48
17.84 2	48.0	97.86	54 18
17.88 2	47.9	97.86	56 13
16.89 7	48.0	97.88	56 56
18.15 1	48.0	97.89	55 29
18.05 1	48.1	97.89	48 11
17.86 3	48.1	97.90	57 31
17.81 3	48.2	97.91	52 26
17.02 7	48.2	97.92	55 42
17.41 3	48.3	97.94	57 19
18.24 1	48.4	97.95	54 12
17.96 2	48.4	97.95	50 42
15.87 8	48.5	97.96	58 16
17.79 3	48.6	97.98	57 03
15.37 10	48.6	97.98	55 37
17.69 3	48.6	97.98	53 20
17.36: 1	48.6	97.98	47 43
16.87 7	48.6	97.99	55 26
18.06 2	48.7	98.00	50 52
18.11 2	49.0	98.05	56 40
17.72 2	49.1	98.06	50 10
16.50 7	49.1	98.07	51 44
16.63 7	49.1	98.07	45 19
17.19 5	49.2	98.08	50 51
17.06 7	49.3	98.10	50 12
17.60 3	49.3	98.11	57 38
15.72 9	49.4	98.12	57 57
17.57 3	49.4	98.12	54 32
18.16 2	49.5	98.15	56 00
16.85 7	49.6	98.16	53 14
17.95 3	49.6	98.16	51 52
11.04w 16	49.6	98.16	54 17

541—600			
Mag.	α 46^{m}	x	$y+50'$
	s	′	′ ″
15.80 7	49.7	98.18	53 05
18.20 1	49.9	98.21	55 01
17.96 3	49.9	98.21	59 39
17.35 3	50.0	98.23	58 04
18.00 1	50.0	98.23	45 41
14.51 11	50.0	98.24	47 04
17.58 2	50.2	98.26	53 23
16.59 6	50.2	98.27	53 37
17.86 3	50.2	98.27	45 58
17.02 6	50.2	98.27	57 49
16.35w 6	50	98.3	53 54
18.04 2	50.5	98.32	51 35
15.69 9	50.5	98.32	52 10
17.38 4	50.5	98.32	52 46
18.15 1	50.6	98.33	57 04
16.97 7	50.6	98.33	57 26
16.42 8	50.6	98.34	56 05
16.37 8	50.7	98.35	51 09
18.05 1	50.7	98.35	47 42
16.53 8	50.8	98.37	47 24
14.70 11	50.9	98.38	48 46
18.10 1	50.9	98.39	59 10
17.42w 6	51	98.4	54 00
16.35 7	51.0	98.41	46 06
17.87 3	51.1	98.42	48 09
18.20 1	51.2	98.45	52 21
9.16w 10	51.3	98.46	53 51
17.46 2	51.3	98.47	55 44
16.86 7	51.3	98.47	49 56
14.72 11	51.4	98.49	50 13
13.31 16	51.4	98.49	51 04
12.76w 12	52	98.5	53 48
17.22 7	51.5	98.50	50 53
18.05 3	51.5	98.50	59 15
17.83 3	51.6	98.52	56 09
17.40 3	51.6	98.52	47 47
18.14 2	51.7	98.54	56 44
17.79 3	51.8	98.55	50 03
17.74 2	51.9	98.57	53 28
17.76 2	52.0	98.58	54 49
16.75 7	52.0	98.58	45 58
17.25 1	52.0	98.59	54 21
17.29 3	52.1	98.60	47 09
18.00 1	52.3	98.64	45 38
15.50w 8	52.4	98.65	53 49
16.18 8	52.7	98.71	45 40
13.89 14	52.8	98.72	53 17
16.61 7	52.8	98.72	58 20
16.10 8	52.9	98.74	45 28
14.94 11	52.9	98.75	48 12
15.95 8	52.9	98.75	52 00
17.86 2	53.1	98.78	52 25
16.20 8	53.1	98.78	46 11
17.31 3	53.2	98.80	47 39
16.70 7	53.4	98.84	50 01
18.00 1	53.5	98.85	45 43
17.74 3	53.6	98.86	47 16
16.66 7	53.7	98.88	56 30
15.25 10	53.7	98.89	52 23
16.11 8	53.8	98.90	53 22

25 prec. + $47^{\mathrm{s}}.1$, + 3′ 45″

601—660				661—720				721—780				781—840				841—900			
Mag.	α 46ᵐ	x	y+50′	Mag.	α 46ᵐ	x	y+50′	Mag.	α 47ᵐ	x	y+50′	Mag.	α 47ᵐ	x	y+50′	Mag.	α 47ᵐ	x	y+50′
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.43 4	53.9	98.91	54 58	17.94 1	58.2	99.69	49 42	18.05 1	2.7	0.49	58 59	17.74 2	7.2	1.29	53 31	17.57 3	12.2	2.17	47 33
17.74 3	53.8	98.91	58 10	17.42 3	58.3	99.70	58 15	17.70 2	2.9	0.51	56 26	17.88 2	7.4	1.32	51 55	18.00 1	12.3	2.18	46 39
17.59 3	53.9	98.91	46 11	18.08 2	58.4	99.71	56 09	17.62 3	2.9	0.51	46 59	18.10 1	7.4	1.32	55 57	18.05 1	12.3	2.18	49 39
17.89 2	53.9	98.92	49 26	18.20 1	58.5	99.73	54 02	18.15 1	3.0	0.53	56 10	17.81 2	7.5	1.33	52 27	17.09 7	12.4	2.20	52 18
18.10 1	53.9	98.92	57 51	16.38 8	58.5	99.74	45 04	15.22 10	3.0	0.54	52 52	16.81 7	7.5	1.34	58 16	17.69 1	12.5	2.21	49 56
17.66 3	54.0	98.94	45 54	17.48 3	58.6	99.75	57 14	16.24 8	3.2	0.56	47 47	16.56 7	7.5	1.34	59 40	17.28 3	12.5	2.22	49 45
16.98 6	54.1	98.95	49 41	17.60 2	58.7	99.76	50 01	18.05 1	3.3	0.58	59 03	16.47 8	7.6	1.35	49 28	17.79 1	13.0	2.30	45 19
17.82 3	54.1	98.95	47 50	17.58 3	58.7	99.77	45 40	18.00 1	3.3	0.59	46 25	15.43 9	7.6	1.35	46 21	18.17 2	13.1	2.31	59 12
18.10 1	54.0	98.95	58 54	17.49 3	58.8	99.79	45 38	17.88 2	3.5	0.62	54 05	18.05 1	7.7	1.37	49 16	17.88 2	13.1	2.32	56 34
18.20 1	54.2	98.96	53 01	15.96 8	58.9	99.80	54 11	18.14 2	3.5	0.62	55 38	17.12 3	7.8	1.38	51 31	16.10 8	13.1	2.32	56 20
17.72 3	54.1	98.97	57 55	18.05 1	58.9	99.80	59 04	16.99 7	3.5	0.63	52 40	16.61 8	7.8	1.39	54 58	17.09 7	13.1	2.33	51 31
17.58 3	54.2	98.98	58 19	15.02 9	59.0	99.83	49 01	16.42 8	3.8	0.67	55 02	17.54 3	7.8	1.39	59 13	15.11 11	13.2	2.34	45 48
15.53 9	54.3	98.98	48 27	16.58 7	59.2	99.87	56 23	17.70 3	3.9	0.68	58 47	17.87 3	7.9	1.40	46 02	16.44 8	13.6	2.40	57 31
12.81w 15	54.5	99.02	52 15	14.81 11	59.3	99.88	49 31	16.87 7	4.0	0.71	58 37	18.10 1	8.0	1.42	54 11	16.73 7	13.7	2.43	58 50
16.40 7	54.5	99.02	53 27	16.97 7	59.5	99.91	56 56	16.99 7	4.0	0.71	52 47	16.84 7	8.1	1.43	59 44	17.83 3	13.9	2.46	59 06
18.20 1	54.6	99.04	52 52	16.68 7	59.6	99.93	57 55	17.57 3	4.0	0.71	47 05	14.62 13	8.1	1.44	59 26	17.74 3	14.0	2.48	49 20
18.14 2	54.5	99.04	56 17	17.04 7	59.6	99.94	55 14	16.47 8	4.0	0.71	49 39	16.79 7	8.4	1.48	58 12	17.69 3	14.1	2.50	47 28
13.46 17	54.8	99.08	48 42	17.01 7	59.7	99.95	55 00	17.83 3	4.0	0.72	47 41	16.28 8	8.4	1.49	45 56	16.52 8	14.2	2.51	46 20
18.27 2	54.8	99.09	54 24	18.02 3	59.7	99.95	59 07	17.54 3	4.1	0.73	50 16	16.85 7	8.6	1.52	47 55	17.69 3	14.3	2.54	48 38
16.15 8	55.1	99.14	51 18	14.60 13	59.7	99.95	52 03	18.15 1	4.1	0.73	51 53	17.77 3	8.6	1.52	58 44	17.02 6	14.4	2.55	50 21
16.04 8	55.2	99.15	51 09	14.93 9	59.9	99.98	51 13	17.24 6	4.1	0.73	53 45	17.83 3	8.6	1.53	51 40	18.00 1	14.5	2.57	54 37
16.60 7	55.2	99.15	58 56	16.81 7	60.3	0.05	49 25	15.00 11	4.1	0.73	46 29	17.06 5	8.7	1.55	53 47	17.65 3	14.5	2.57	56 24
17.15 6	55.3	99.16	51 50	18.14 2	60.5	0.08	56 34	16.93 3	4.1	0.74	49 06	13.58 16	8.7	1.55	48 56	15.74 8	14.6	2.59	53 51
15.94 5	55.3	99.16	52 16	17.37 4	60.5	0.08	55 26	17.91 2	4.1	0.74	54 56	17.71 3	8.8	1.56	51 55	15.97 8	14.6	2.59	58 47
17.96 2	55.3	99.16	53 50	16.59 2	60.5	0.09	55 46	14.08 12	4.2	0.75	56 32	16.63 7	8.9	1.59	56 11	17.66 2	14.7	2.61	54 48
18.10 1	55.6	99.22	57 55	18.10 1	60.6	0.10	58 35	16.96 7	4.3	0.76	50 40	17.76 2	9.1	1.62	49 42	16.30 8	14.8	2.63	48 24
14.97 8	55.7	99.23	54 37	16.27 7	60.7	0.12	52 54	17.59 3	4.4	0.79	48 43	17.82 3	9.2	1.63	49 23	14.71 8	14.8	2.63	49 56
17.09 5	55.9	99.26	49 25	18.08 2	60.7	0.13	51 55	17.83 3	4.5	0.80	59 24	17.65 3	9.2	1.63	55 03	17.19 3	14.8	2.63	46 47
17.24 6	55.9	99.27	54 24	16.88 8	60.7	0.13	51 38	16.34 7	4.6	0.82	45 11	16.80 7	9.4	1.66	51 53	15.68 9	15.1	2.67	55 51
17.86 2	56.0	99.28	54 07	17.29 3	60.8	0.14	45 48	16.92 7	4.6	0.82	50 17	16.20 8	9.7	1.71	58 44	17.90 3	15.3	2.71	56 40
16.55 6	56.0	99.29	53 49	15.84 9	60.8	0.14	55 17	18.00 1	4.7	0.83	46 52	15.23 11	9.9	1.75	49 07	16.32 8	15.3	2.72	47 24
18.22 2	56.0	99.29	54 19	17.78 3	60.8	0.15	55 04	17.67 3	4.7	0.83	59 37	15.11 11	9.9	1.75	45 19	17.67 3	15.5	2.75	57 46
17.86 2	56.0	99.30	59 50	16.43 8	60.8	0.15	46 50	18.00 1	4.7	0.84	53 26	16.00 8	10.0	1.77	55 37	18.00 1	15.7	2.78	46 56
14.76 12	56.1	99.31	53 13	17.83 3	60.9	0.16	52 08	17.37 3	4.9	0.86	52 57	17.84 3	10.0	1.77	50 49	17.62 3	15.7	2.79	46 51
18.00 1	56.3	99.35	46 44	17.09 7	60.9	0.17	54 59	16.36 8	4.9	0.86	50 32	16.53 8	10.0	1.77	53 09	16.60 8	15.7	2.79	49 14
17.76 2	56.4	99.36	51 53	14.81 12	60.9	0.17	54 30	17.26 3	4.9	0.87	49 01	17.98 2	10.1	1.79	51 41	16.75 7	15.9	2.81	59 23
17.86 2	56.6	99.40	52 04	16.48 8	60.9	0.17	46 28	16.54: 1	5.1	0.91	48 44	18.00 1	10.2	1.80	46 53	16.57 7	16.0	2.83	54 59
17.43 3	56.8	99.44	56 54	17.91 2	60.9	0.17	58 58	17.05 7	5.2	0.92	58 55	17.74 3	10.2	1.81	45 26	17.66 3	16.0	2.83	46 35
18.05 1	56.8	99.44	58 52	16.53 8	61.2	0.21	55 54	18.15 1	5.2	0.93	54 40	17.90 2	10.3	1.82	52 02	17.90 3	16.2	2.86	50 24
18.20 1	57.0	99.46	54 21	18.05 1	61.2	0.22	56 58	15.86 7	5.2	0.93	54 26	16.82 7	10.4	1.84	58 12	17.76 2	16.2	2.86	52 40
17.93 3	57.1	99.49	47 21	16.92 7	61.2	0.22	49 54	14.07 12	5.3	0.94	47 57	16.93 7	10.4	1.85	57 15	17.98 3	16.2	2.87	50 40
17.53 5	57.2	99.50	54 50	18.14 2	61.3	0.23	53 49	16.87 7	5.3	0.94	56 27	16.90 7	10.6	1.88	48 30	17.98 3	16.2	2.87	53 50
16.18 8	57.3	99.53	45 21	16.54 7	61.3	0.24	59 19	18.00 1	5.5	0.98	49 24	18.00 1	10.6	1.89	46 42	16.82 7	16.2	2.87	57 12
16.40 8	57.4	99.54	55 52	17.52 3	61.4	0.25	58 30	17.70 2	5.8	1.03	56 35	17.04 5	10.8	1.91	59 12	17.98 2	16.3	2.88	53 52
15.81 8	57.4	99.54	55 15	16.52 8	61.4	0.25	50 41	17.78 2	5.9	1.05	56 41	17.46 2	10.8	1.92	47 13	17.28 3	16.3	2.89	45 11
17.96 3	57.4	99.55	46 54	16.12 8	61.4	0.25	52 19	17.94 2	5.9	1.05	55 39	16.93 7	10.9	1.94	49 58	17.41 3	16.4	2.90	54 16
17.85 3	57.5	99.57	46 40	17.54 3	61.5	0.26	52 10	17.74 3	6.1	1.08	54 55	17.16 3	10.9	1.94	53 16	17.64 3	16.5	2.92	53 50
16.11 8	57.5	99.57	58 28	17.91 3	61.5	0.27	55 05	17.43 3	6.1	1.09	46 02	16.80 7	11.0	1.95	55 20	16.97 7	16.5	2.93	54 19
18.09 2	57.6	99.58	53 22	17.31 3	61.8	0.32	56 43	15.89 8	6.2	1.10	56 27	16.29 8	11.2	1.98	59 52	17.06 6	16.7	2.97	53 21
17.10 7	57.6	99.59	56 40	16.74 7	61.9	0.33	46 20	17.59 3	6.3	1.11	45 42	18.02 3	11.3	2.00	59 19	17.91 2	16.8	2.97	56 36
17.18 7	57.8	99.61	56 43	17.88 3	62.2	0.38	54 32	17.32 3	6.3	1.12	50 17	17.79 3	11.3	2.01	54 33	17.70 3	16.9	2.98	58 48
17.91 3	57.8	99.61	46 10	15.63 7	62.3	0.40	55 38	16.76 7	6.4	1.14	47 53	16.60 8	11.4	2.03	47 43	17.80 3	16.8	2.99	46 48
17.79 3	57.8	99.62	57 09	17.94 2	62.3	0.40	48 53	17.15 7	6.5	1.15	54 49	17.68 3	11.5	2.04	52 02	17.12 5	17.0	3.01	55 04
15.22 10	57.9	99.63	56 31	17.82 2	62.5	0.44	49 45	16.57 8	6.6	1.16	52 39	18.00 1	11.5	2.05	47 34	16.47 7	17.4	3.08	49 30
16.99 5	58.0	99.65	57 10	16.93 7	62.5	0.44	53 04	17.75 3	6.6	1.16	47 05	15.73 8	11.6	2.05	57 59	17.91 2	17.6	3.11	57 43
17.63 3	58.1	99.66	54 47	16.69 7	62.5	0.45	58 39	16.71 7	6.6	1.16	57 57	17.40 2	11.6	2.07	51 52	16.87 7	17.6	3.12	56 45
15.32 10	58.1	99.67	55 47	17.96 3	62.7	0.48	56 51	17.25 7	6.7	1.18	54 23	17.91 3	11.6	2.07	54 41	15.63 8	17.7	3.14	59 17
15.76 8	58.1	99.67	58 05	16.73 7	62.7	0.48	59 14	18.09 3	6.8	1.20	53 26	16.55 8	11.9	2.12	51 16	17.82 3	17.7	3.14	51 20
16.75 8	58.2	99.68	51 01	17.86 3	62.7	0.48	54 01	14.78 12	6.8	1.21	55 11	17.74 3	11.9	2.12	46 58	16.32 8	17.7	3.14	49 48
17.30 7	58.2	99.69	54 39	18.00 1	62.7	0.48	47 38	15.96 8	7.2	1.29	59 02	17.95 3	12.1	2.15	57 15	18.00 1	17.7	3.15	46 42

25 prec. + $47^{s}.1$, + 3′ 46″

901—960				961—1020				1021—1080				1081—1086			
Mag.	α 47^{m}	x	$y+50'$	Mag.	α 47^{m}	x	$y+50'$	Mag.	α 47^{m}	x	$y+50'$	Mag.	α 47^{m}	x	$y+50'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.96 3	17.7	3.15	54 57	15.60 8	22.3	3.95	49 31	17.43 3	28.9	5.12	59 09	15.71 8	33.5	5.94	49 36
17.78 3	17.8	3.15	59 44	16.69 7	22.5	3.99	46 59	17.75 3	28.9	5.12	59 37	14.95 11	33.5	5.94	59 07
17.55 3	17.8	3.16	45 13	18.05 1	22.8	4.04	56 14	15.46 9	29.0	5.14	51 55	15.73 8	33.5	5.94	59 21
18.00 1	17.9	3.19	47 11	17.81 3	22.9	4.05	59 35	17.20 3	29.2	5.19	45 49	16.87 7	33.6	5.96	54 59
17.76 3	18.1	3.21	52 52	16.44 7	22.8	4.05	50 16	16.81 7	29.5	5.23	54 04	15.38 9	33.7	5.98	52 29
17.18 3	18.1	3.21	58 50	18.00 1	22.8	4.05	47 23	16.96 3	29.5	5.24	53 53	16.91 4	33.9	6.00	55 47
18.00 1	18.3	3.24	59 27	17.35 3	23.0	4.09	46 06	16.58 7	29.6	5.25	52 04				
17.61 3	18.2	3.24	48 03	14.48 13	23.3	4.13	45 37	17.40 3	29.8	5.29	50 50				
16.79 7	18.2	3.24	47 25	16.34 7	23.3	4.13	48 01	16.75 7	29.8	5.29	59 06				
18.05 1	18.4	3.26	51 49	9.65w10	23.4	4.15	51 51	17.36 3	29.8	5.29	48 06				
17.68 2	18.8	3.33	50 21	18.05 1	23.5	4.16	56 57	16.06 8	29.9	5.30	48 46				
17.58 3	18.8	3.34	47 21	16.57 7	23.6	4.19	58 28	17.41 3	30.0	5.31	48 36				
17.59 3	18.9	3.35	58 57	17.97 3	23.8	4.21	54 01	17.61 3	30.0	5.32	45 23				
17.55 3	19.0	3.36	57 12	14.63 13	24.1	4.27	53 06	17.62 3	30.1	5.33	47 16				
18.05 1	19.0	3.36	55 02	17.61 2	24.1	4.27	51 06	16.51 8	30.1	5.34	50 35				
16.73 5	19.1	3.39	46 02	17.63 3	24.2	4.28	58 15	16.91 4	30.4	5.38	56 45				
15.74 8	19.2	3.40	45 55	18.05 1	24.2	4.29	56 12	17.51 3	30.4	5.39	53 51				
17.43 3	19.3	3.42	45 43	15.97 8	24.2	4.29	52 03	15.52 9	30.5	5.41	54 46				
15.11 10	19.3	3.42	51 58	16.69 7	24.3	4.30	49 02	17.88 3	30.6	5.42	52 19				
17.03 5	19.4	3.43	59 22	17.95 3	24.4	4.32	48 30	17.71 3	30.6	5.43	54 51				
17.69 3	19.4	3.44	58 01	16.64 7	24.4	4.32	58 32	16.78 7	30.6	5.43	51 18				
15.74 8	19.6	3.46	57 02	16.63 6	24.5	4.34	45 02	17.33 3	30.6	5.43	47 45				
18.00 1	19.9	3.53	51 37	12.11w14	24.6	4.37	45 23	16.49 7	30.6	5.43	47 24				
15.75 8	19.9	3.54	51 56	15.89 8	25.0	4.43	45 15	16.47 7	30.7	5.44	45 26				
16.19 8	20.0	3.55	46 03	17.40 3	25.1	4.45	48 51	16.10 8	30.8	5.47	51 01				
16.81 7	20.0	3.55	52 03	14.36 13	25.1	4.45	47 56	17.94 1	31.3	5.55	59 09				
16.91 7	20.0	3.55	58 24	17.38 3	25.4	4.51	47 22	17.94 1	31.4	5.57	53 28				
16.62 8	20.3	3.60	54 47	17.81 3	25.5	4.51	58 07	15.64 8	31.5	5.58	58 28				
16.58 7	20.4	3.61	56 34	16.29 8	25.5	4.53	48 33	17.11 3	31.5	5.59	51 30				
17.82 2	20.4	3.61	57 45	15.76 8	25.6	4.53	56 10	17.67 3	31.8	5.64	57 09				
17.78 3	20.4	3.62	58 12	17.88 3	25.6	4.54	56 32	17.70 3	31.8	5.64	58 55				
18.05 1	20.4	3.62	57 22	16.28 8	25.8	4.59	54 08	18.00 1	31.9	5.66	54 21				
17.62 3	20.5	3.64	51 11	17.70 3	25.8	4.59	45 21	17.58 3	32.0	5.67	56 22				
14.98 10	20.6	3.65	58 33	17.71 3	26.0	4.61	47 27	16.59 7	32.0	5.69	50 16				
16.83 7	20.6	3.65	47 48	17.62 3	26.0	4.62	45 58	12.07w15	32.3	5.73	48 15				
16.61 8	20.7	3.66	55 03	17.95 3	26.1	4.63	53 34	17.40 3	32.4	5.74	58 43				
16.53 7	20.8	3.69	56 14	16.93 5	26.3	4.65	58 48	16.67 7	32.4	5.75	52 32				
17.70 3	20.9	3.71	54 59	15.26 11	26.2	4.65	49 16	16.53 7	32.5	5.76	50 12				
18.00 1	21.0	3.72	48 16	17.43 3	26.3	4.66	51 12	17.57 3	32.5	5.77	46 59				
13.77 17	21.0	3.72	56 07	17.83 3	26.3	4.67	53 21	17.89 1	32.6	5.78	45 39				
14.70 12	21.1	3.74	51 21	17.33 3	26.5	4.68	57 40	17.87 3	32.7	5.78	58 08				
18.05 1	21.3	3.77	56 34	18.00 1	26.5	4.70	47 46	17.38 3	32.8	5.80	55 15				
17.88 2	21.3	3.78	53 15	16.84 7	26.8	4.75	56 06	16.66 7	32.8	5.81	57 38				
17.76 2	21.3	3.79	49 42	17.27 3	26.8	4.75	57 00	16.66 7	32.8	5.81	49 39				
17.71 3	21.5	3.82	54 07	17.08 3	26.9	4.77	51 31	16.76 7	32.8	5.82	49 12				
17.88 2	21.6	3.83	55 30	16.84 7	27.0	4.79	52 12	18.00 1	32.8	5.82	54 26				
17.93 3	21.6	3.84	49 27	16.35 8	27.1	4.81	47 12	16.74 7	32.9	5.83	55 09				
17.62 3	21.6	3.84	52 47	15.40 8	27.1	4.81	46 12	17.89 1	32.9	5.83	46 00				
17.64 3	21.7	3.85	50 44	18.00 1	27.3	4.84	54 32	17.70 3	32.9	5.83	46 49				
16.92 6	22.0	3.90	55 13	17.91 3	27.6	4.88	57 00	16.24 8	33.1	5.86	54 18				
17.91 2	22.1	3.91	56 44	16.84 7	27.6	4.89	57 43	17.59 3	33.1	5.86	59 09				
17.31 3	22.1	3.91	57 37	15.98 8	27.8	4.91	56 38	17.53 3	33.1	5.87	48 07				
16.19 8	22.1	3.91	45 40	17.72 3	27.8	4.93	54 15	16.81 7	33.1	5.87	53 41				
17.94 1	22.1	3.92	45 18	17.12 3	27.8	4.93	45 51	16.91 3	33.2	5.88	53 12				
17.26 2	22.1	3.92	47 42	17.34 3	28.0	4.96	52 40	17.61 3	33.2	5.89	50 40				
15.13 11	22.1	3.92	51 06	16.61 7	28.1	4.96	59 16	17.43 3	33.2	5.89	55 50				
16.56 7	22.1	3.92	58 03	17.84 2	28.0	4.97	48 59	17.32 3	33.3	5.91	45 16				
16.27 8	22.1	3.92	58 17	16.45 7	28.4	5.03	50 29	16.01 8	33.3	5.91	47 41				
16.85 6	22.2	3.93	50 00	16.90 7	28.4	5.04	53 24	17.61 3	33.4	5.92	45 30				
17.47 3	22.2	3.94	57 13	17.58 3	28.6	5.07	48 00	16.66 5	33.4	5.93	50 30				

25 prec. + 47^{s}.2, + 3′ 46″

1s—60s				61s—120s				121s—180s				181s—240s				241s—300s			
Mag.	α 45^m	x	$y+50'$	Mag.	α 46^m	x	$y+50'$ $y-10'$	Mag.	α 46^m	x	$y+50'$ $y-10'$	Mag.	α 46^m	x	$y+50'$ $y-10'$	Mag.	α 46^m	x	$y+50'$ $y-10'$
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
17.37 2	47	87.1	52.8	15.03 10	0	89.4	47.6	17.08 2	8	90.7	49.6	16.46 5	24	93.6	43.8	16.42 7	37	95.9	43.3
17.24 2	48	87.3	54.2	17.54 2	0	89.4	47.8	17.70 2	8	90.7	52.3	17.68 2	24	93.6	0.6	16.60 6	37	95.9	0.5
15.82 7	49	87.4	53.5	17.61 2	0	89.4	49.0	16.67 5	7	90.7	55.0	17.30 2	24	93.7	1.4	12.90 14	37	95.9	0.7
17.50 2	49	87.4	55.2	17.68 2	0	89.4	53.3	16.66 6	7	90.7	56.3	16.68 6	24	93.7	1.7	17.56 2	37	95.9	1.4
14.45 12	49	87.4	55.8	16.03 7	1	89.5	48.5	17.68 2	7	90.7	0.0	17.50 2	24	93.7	2.9	16.67 6	37	95.9	3.3
17.36 2	49	87.5	52.4	16.66 5	1	89.5	55.3	16.04 7	8	90.8	45.7	16.53 7	25	93.8	0.3	17.86 2	37	96.0	0.5
15.36 9	49	87.5	52.6	17.64 2	1	89.6	50.2	16.10 7	8	90.8	46.1	17.72 2	25	93.8	1.6	14.89 11	37	96.0	0.9
16.52 6	50	87.6	53.3	17.61 2	1	89.6	52.1	17.41 2	8	90.8	49.4	17.48 2	25	93.8	2.1	16.28 6	37	96.0	3.0
15.93 7	50	87.6	54.0	17.68 2	2	89.6	55.4	17.84 2	8	90.8	51.0	17.36 2	25	93.8	2.7	17.54 2	37	96.0	3.4
17.50 2	50	87.6	55.7	17.30 2	1	89.6	57.4	15.27 7	8	90.8	55.6	16.58 6	26	93.9	44.8	16.43 7	38	96.1	44.1
16.43 7	51	87.7	53.5	16.46 6	1	89.6	58.7	17.30 2	8	90.8	56.1	17.68 2	25	93.9	2.6	16.66 6	38	96.1	1.2
17.48 2	51	87.7	56.3	15.98 7	2	89.8	48.9	15.43 8	8	90.8	58.7	16.57 6	25	93.9	3.1	14.03 13	38	96.1	3.8
15.16 9	51	87.7	57.4	17.66 2	3	89.8	51.4	16.13 7	8	90.8	2.2	17.24 2	26	94.0	1.2	17.54 2	39	96.2	42.8
16.30 7	51	87.8	50.7	17.75 2	2	89.8	54.8	17.56 2	9	90.9	46.2	17.32 2	26	94.0	2.6	15.49 7	38	96.2	43.0
16.28 7	51	87.8	52.3	17.56 2	3	89.9	54.8	14.84 10	9	90.9	54.4	17.56 2	26	94.0	2.9	17.66 2	39	96.2	44.1
17.56 2	51	87.8	53.4	16.62 6	3	89.9	58.0	17.70 2	9	90.9	55.1	17.34 2	26	94.0	3.0	17.59 2	39	96.2	44.9
17.24 2	51	87.8	53.6	16.59 5	3	89.9	59.9	16.29 7	9	90.9	1.1	17.52 2	27	94.1	2.5	16.09 7	39	96.2	0.2
16.84 2	51	87.8	57.5	17.48 2	3	89.9	0.8	16.25 7	8	90.9	1.8	17.20 2	27	94.1	4.2	16.73 6	38	96.2	1.1
14.70: 8	52	87.9	53.9	17.61 2	4	90.0	47.4	17.32 2	9	91.0	46.2	16.42 6	27	94.1	4.3	16.99 4	38	96.2	2.3
14.14 10	52	87.9	55.8	16.65 5	4	90.0	56.4	17.43 2	9	91.0	47.1	15.18 9	28	94.2	44.4	17.46 2	39	96.2	4.4
16.26 7	52	87.9	57.3	15.63 7	3	90.0	57.6	16.56 6	10	91.0	47.4	16.38 6	27	94.2	44.5	16.62 6	39	96.3	3.4
17.32 2	53	88.0	50.0	16.32 7	3	90.0	58.3	17.87 2	9	91.0	52.6	17.61 2	27	94.2	3.6	17.24 2	40	96.4	43.8
17.59 2	52	88.0	50.9	17.50 2	3	90.0	59.8	16.67 6	9	91.0	54.7	17.52 2	28	94.3	44.6	15.07 9	40	96.4	44.2
17.46 2	52	88.0	52.6	17.40 2	3	90.0	0.0	15.81 7	9	91.0	54.9	16.66 6	28	94.3	0.9	17.25 2	40	96.4	44.3
17.56 2	52	88.0	52.8	17.46 2	4	90.0	0.3	16.56 6	9	91.0	1.7	16.75 4	28	94.4	4.2	17.84 2	40	96.4	1.9
17.54 2	52	88.0	53.0	16.48 7	4	90.1	51.0	16.25 7	10	91.1	0.7	15.98 7	29	94.5	3.8	17.56 2	40	96.4	4.3
17.56 2	52	88.0	55.3	17.36 2	4	90.1	54.8	17.61 2	11	91.3	2.0	17.84 2	29	94.6	0.3	13.17 14	40	96.5	44.1
15.13 9	53	88.1	58.5	16.28 7	4	90.1	56.4	16.64 6	13	91.6	1.0	17.62 2	30	94.6	1.6	17.61 2	40	96.5	3.7
16.60 5	53	88.2	51.7	17.54 2	4	90.1	56.8	15.53 7	12	91.6	2.4	16.38 7	30	94.7	0.6	16.64 6	40	96.5	3.9
17.61 2	54	88.3	51.7	17.54 2	4	90.1	59.8	17.75 2	14	91.8	0.3	16.57 6	30	94.7	4.1	12.92 15	41	96.6	44.5
17.61 2	54	88.3	57.2	16.59 5	4	90.1	0.6	17.43 2	14	91.8	0.4	16.64 5	31	94.8	44.6	16.61 6	41	96.6	1.2
17.50 2	55	88.4	50.5	17.50 2	5	90.2	54.3	15.13 9	14	91.8	2.0	16.65 6	31	94.8	0.8	17.75 2	41	96.6	2.4
12.08 14	54	88.4	54.4	16.10 7	5	90.2	56.5	17.59 2	15	92.1	0.1	17.38 2	31	94.8	3.7	13.58 14	41	96.7	44.7
17.32 2	54	88.4	54.7	17.66 2	5	90.2	58.4	16.72 6	15	92.1	0.2	17.34 2	31	94.9	44.3	17.68 2	41	96.7	3.4
16.41 7	55	88.4	56.2	17.30 2	5	90.2	59.2	17.61 2	15	92.1	0.8	15.88 5	31	94.9	3.8	16.26 7	42	96.8	44.9
17.61 2	55	88.5	52.2	17.56 2	5	90.3	47.7	17.75 2	16	92.2	0.0	17.54 2	32	95.0	43.9	16.43 7	42	96.8	1.6
17.50 2	55	88.5	52.6	16.61 5	5	90.3	51.1	16.03 7	16	92.2	2.3	15.90 7	32	95.0	44.0	16.64 6	42	96.8	1.8
17.54 2	55	88.5	57.3	14.23 9	5	90.3	59.6	17.36 2	17	92.4	44.6	17.72 2	32	95.0	2.3	17.75 2	42	96.8	1.9
14.49 11	56	88.6	51.2	15.68 7	5	90.3	0.7	17.36 2	17	92.4	44.7	13.28 15	32	95.0	4.1	17.59 2	42	96.8	2.0
16.35 7	56	88.6	54.9	17.41 2	6	90.4	56.0	16.07 7	17	92.4	44.9	17.61 2	32	95.1	44.0	17.64 2	42	96.8	2.3
17.48 2	56	88.6	59.1	17.72 2	6	90.4	56.2	16.63 6	17	92.4	1.1	17.52 2	32	95.1	2.1	16.53 6	42	96.9	2.6
17.43 2	56	88.7	48.9	15.62 6	6	90.4	57.0	16.48 6	17	92.4	1.2	17.61 2	32	95.1	4.2	14.87 9	43	97.0	43.0
15.48 6	56	88.7	51.2	15.75 7	6	90.4	57.2	17.24 2	18	92.6	44.1	17.45 2	32	95.1	4.4	17.92 2	43	97.0	1.4
16.57 5	57	88.8	48.6	16.44 6	6	90.4	57.3	12.81 14	18	92.6	44.6	14.80 9	33	95.2	43.4	15.68 7	43	97.0	1.7
17.54 2	57	88.8	49.4	17.54 2	6	90.4	57.5	17.72 2	19	92.7	0.4	16.58 4	33	95.2	44.6	17.75 2	43	97.0	2.7
17.56 2	57	88.8	50.4	16.52 6	6	90.5	46.6	17.38 2	19	92.7	2.4	17.50 2	33	95.2	1.2	17.41 2	43	97.0	4.7
16.63 6	57	88.8	52.1	17.34 2	6	90.5	50.4	17.56 2	19	92.7	2.8	15.07 9	33	95.2	1.8	15.36 8	44	97.1	44.3
14.31 10	57	88.9	47.9	17.50 2	6	90.5	50.6	14.84 10	19	92.8	0.7	17.72 2	33	95.2	2.4	15.84 7	44	97.1	1.4
17.68 2	57	88.9	52.2	14.98 10	6	90.5	50.8	17.36 2	20	92.9	2.9	16.18 7	34	95.3	44.0	16.22 7	44	97.1	2.9
16.57 5	58	89.0	51.5	15.72 7	6	90.5	56.0	15.88 7	20	92.9	3.3	14.04 11	33	95.3	0.1	17.68 2	44	97.1	3.4
16.47 5	58	89.0	51.9	14.61 8	6	90.5	57.3	17.54 2	20	92.9	3.6	17.68 2	33	95.3	3.3	16.58 5	44	97.1	3.8
17.28 2	58	89.0	57.9	17.72 2	6	90.5	57.8	16.51 5	21	93.0	44.1	15.18 9	34	95.4	43.3	17.52 2	45	97.3	42.4
17.45 2	59	89.1	47.5	17.54 2	6	90.5	0.0	17.61 2	21	93.1	44.7	15.23 9	34	95.4	43.4	17.41 2	45	97.3	44.4
15.73 7	59	89.1	50.4	17.16 2	7	90.6	46.0	17.36 2	21	93.1	2.7	17.28 2	34	95.4	2.5	16.17 7	45	97.4	0.3
17.22 2	58	89.1	51.6	17.87 2	7	90.6	53.2	17.52 2	22	93.2	44.6	17.45 2	35	95.6	42.9	16.58 6	45	97.4	0.5
17.43 2	59	89.2	48.5	17.56 2	7	90.6	54.1	17.61 2	22	93.2	44.7	12.37 14	35	95.6	2.4	16.60 5	46	97.4	3.8
14.60 10	60	89.3	49.2	15.84 7	7	90.6	55.3	16.32 7	22	93.2	0.9	17.14 2	35	95.6	3.6	16.52 6	46	97.5	3.0
16.55 6	60	89.3	50.4	17.70 2	7	90.6	55.6	16.30 7	22	93.2	3.1	17.61 2	35	95.6	4.4	16.19 7	46	97.6	43.0
17.75 2	60	89.3	52.4	17.61 2	7	90.6	58.7	17.64 2	23	93.4	0.8	15.97 7	36	95.7	4.7	14.01 13	47	97.6	0.4
17.22 2	60	89.3	55.8	17.59 2	8	90.7	46.3	17.75 2	23	93.4	1.7	17.52 2	37	95.9	43.1	16.43 6	46	97.6	3.7

25 prec. + $47^{s}.0$, + 3′ 44″

301s—360s				361s—420s				421s—480s				481s—540s				541s—600s			
Mag.	α 46^m	x	$\frac{y+50'}{y-10'}$	Mag.	α 47^m	x	$\frac{y+50'}{y-10'}$	Mag.	α 47^m	x	$\frac{y+50'}{y-10'}$	Mag.	α 47^m	x	$\frac{y+50'}{y-10'}$	Mag.	α 47^m	x	$\frac{y+50'}{y-10'}$
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
16.45 7	47	97.7	0.3	16.62 6	0	0.0	43.3	16.17 7	13	2.2	43.0	14.97 10	25	4.4	0.8	16.48 4	38	6.8	47.7
17.75 2	47	97.7	2.2	17.56 2	0	0.0	44.2	15.98 7	13	2.2	44.6	16.69 6	25	4.4	1.1	17.18 2	38	6.8	48.8
17.68 2	47	97.7	2.4	17.61 2	0	0.0	3.7	16.68 6	12	2.2	0.4	14.98 9	25	4.4	1.7	15.99 7	38	6.8	49.1
17.30 2	47	97.7	3.0	17.72 2	1	0.1	44.6	17.84 2	13	2.2	1.3	17.54 2	25	4.4	2.9	15.66 7	38	6.8	51.2
16.03 7	48	97.8	44.4	17.50 2	1	0.1	4.3	17.50 2	12	2.2	1.7	15.83 7	25	4.4	3.4	17.52 2	38	6.8	54.6
17.40 2	48	97.8	0.8	17.32 2	1	0.1	4.4	17.75 2	12	2.2	2.3	17.16 2	25	4.5	1.5	17.54 2	38	6.8	1.4
16.33 7	48	97.8	1.9	17.56 2	1	0.1	4.7	17.52 2	13	2.3	43.0	17.20 2	26	4.6	0.6	16.28 7	38	6.8	1.5
16.07 7	48	97.8	4.7	17.80 2	1	0.2	1.3	17.68 2	13	2.3	3.0	17.28 2	26	4.6	3.2	15.82 7	39	6.9	46.8
15.99 7	48	97.9	43.2	15.02 8	1	0.2	1.8	17.92 2	14	2.4	0.5	17.34 2	27	4.7	1.3	17.64 2	39	6.9	50.8
17.50 2	48	97.9	0.8	17.75 2	1	0.2	2.4	17.64 2	14	2.4	2.5	16.10 7	27	4.7	2.4	17.68 2	39	6.9	58.3
15.22 9	48	97.9	2.3	16.39 6	1	0.2	3.4	16.64 4	14	2.5	43.1	17.34 2	27	4.7	2.6	14.55 11	39	7.0	48.0
15.03 9	48	97.9	2.4	16.74 6	2	0.3	0.3	15.16 9	14	2.5	44.9	17.61 2	27	4.8	2.0	17.68 2	39	7.0	51.4
17.30 2	48	97.9	3.7	17.41 2	2	0.3	1.9	16.71 5	14	2.5	1.3	17.75 2	28	4.9	0.5	16.58 6	40	7.0	56.0
17.58 2	49	98.1	44.5	17.64 2	2	0.3	3.5	17.50 2	14	2.5	4.7	15.01 10	29	5.1	0.9	16.32 6	40	7.0	57.7
16.37 7	49	98.1	0.2	14.34 12	3	0.4	1.2	16.62 6	15	2.6	43.4	16.43 6	29	5.2	44.6	16.20 7	39	7.0	59.6
16.56 4	49	98.1	2.2	14.44 12	3	0.5	2.9	16.75 6	15	2.6	1.1	16.76 6	29	5.2	0.4	17.50 2	40	7.0	0.2
17.92 2	50	98.2	1.1	16.86 2	3	0.5	3.4	15.93 7	15	2.6	2.3	17.40 2	30	5.2	1.1	17.28 2	40	7.1	47.2
17.36 2	50	98.2	3.6	17.30 2	3	0.5	3.6	13.51 16	15	2.6	2.8	17.66 2	30	5.3	0.4	16.56 6	40	7.1	57.6
16.21 7	50	98.3	43.8	16.14 7	3	0.5	4.2	16.36 6	15	2.6	3.4	17.48 2	31	5.4	44.8	17.42 2	41	7.2	47.6
17.13 2	50	98.3	4.3	17.61 2	3	0.6	4.6	13.56 14	15	2.7	43.8	17.07 2	31	5.4	0.9	16.57 6	41	7.2	51.0
17.70 2	51	98.4	44.6	16.16 7	4	0.6	5.0	17.80 2	16	2.8	0.3	17.42 2	31	5.4	1.4	14.34 12	41	7.2	51.8
16.59 6	51	98.4	0.4	16.50 7	4	0.7	44.7	17.61 2	16	2.8	1.2	16.25 7	31	5.4	1.9	16.29 7	41	7.2	53.8
17.07 4	52	98.5	1.6	17.34 2	5	0.8	43.0	17.78 2	16	2.9	0.6	17.36 2	33	5.9	1.3	12.47 13	41	7.2	56.7
15.69 7	52	98.6	3.8	16.65 5	5	0.8	1.7	16.27 7	16	2.9	2.6	16.52 5	33	5.9	1.4	15.52 7	41	7.2	57.1
15.85 7	52	98.6	4.0	17.64 2	5	0.8	2.6	17.59 2	16	2.9	3.7	15.60 7	34	6.0	0.6	17.66 2	41	7.2	58.3
17.39 2	52	98.6	4.1	17.50 2	5	0.8	3.7	17.36 2	17	3.0	44.2	17.61 2	34	6.0	2.0	16.56 5	41	7.3	52.5
16.57 6	53	98.7	44.3	17.52 2	5	0.9	42.9	16.64 6	17	3.0	0.2	17.04 2	34	6.1	53.6	16.50 7	41	7.3	53.3
15.79 7	53	98.7	0.9	17.46 2	5	0.9	44.0	16.56 6	17	3.0	2.0	17.36 2	34	6.1	53.7	16.68 6	41	7.3	55.8
16.02 7	53	98.8	1.4	17.20 2	6	1.0	43.5	17.56 2	17	3.0	2.2	17.32 2	34	6.1	54.9	14.56 4	41	7.3	58.0
17.36 2	54	99.0	43.3	17.56 2	6	1.0	44.1	10.69 11	17	3.1	44.7	17.46 2	35	6.2	46.8	17.46 2	41	7.3	59.3
14.94 10	54	99.0	44.1	16.59 6	6	1.0	1.6	16.52 6	18	3.1	0.4	17.26 2	35	6.2	47.5	17.30 2	41	7.3	59.4
16.64 6	54	99.0	3.0	16.28 6	6	1.0	2.4	16.20 7	18	3.2	44.4	16.66 6	35	6.2	52.4	17.61 2	42	7.4	47.3
13.73 16	54	99.0	3.8	17.48 2	6	1.1	43.1	17.36 2	18	3.2	44.8	17.43 2	35	6.2	54.7	17.68 2	42	7.4	48.5
17.44 2	54	99.0	4.8	16.07 7	6	1.1	1.8	16.49 6	18	3.2	2.2	17.92 2	35	6.2	54.8	16.60 3	42	7.4	48.9
17.80 2	55	99.1	0.4	16.56 6	6	1.1	2.7	14.95 10	18	3.2	3.7	15.71 7	35	6.2	56.2	17.24 2	41	7.4	50.5
17.68 2	55	99.1	3.0	17.56 2	6	1.1	4.4	15.52 7	18	3.2	3.9	16.18 4	35	6.2	0.4	16.46 7	42	7.4	51.8
16.29 7	55	99.2	44.8	17.54 2	7	1.2	0.3	15.94 7	19	3.3	44.4	16.57 6	36	6.3	50.4	17.50 2	42	7.4	55.9
17.56 2	56	99.2	0.8	15.97 7	7	1.3	43.9	17.26 2	19	3.3	2.8	17.41 2	36	6.3	0.2	17.54 2	42	7.4	0.1
17.50 2	55	99.2	4.4	13.89 14	7	1.3	0.7	17.14 2	19	3.3	2.9	17.32 2	36	6.4	45.8	17.64 2	42	7.5	55.0
16.38 6	55	99.2	4.9	16.19 7	8	1.4	1.8	16.29 7	19	3.4	0.3	17.68 2	36	6.4	47.5	16.52 6	42	7.5	56.3
17.61 2	56	99.3	42.6	15.70 7	8	1.4	4.2	16.55 6	19	3.4	1.1	16.64 6	36	6.4	50.8	15.68 7	43	7.6	46.7
16.31 7	56	99.3	4.1	17.61 2	8	1.5	44.0	17.16 2	19	3.4	2.6	13.50 15	36	6.4	56.3	15.60 7	43	7.6	47.5
17.75 2	56	99.4	2.4	17.92 2	8	1.5	1.0	16.14 7	20	3.5	3.1	15.17 10	36	6.4	59.1	16.00 7	43	7.6	48.1
17.68 2	57	99.4	3.4	15.88 7	8	1.5	2.0	17.68 2	20	3.6	0.6	17.61 2	36	6.4	0.2	15.61 8	43	7.6	50.3
17.28 2	57	99.5	42.9	15.34 8	9	1.6	2.1	17.28 2	21	3.7	43.7	16.27 6	36	6.4	1.2	17.26 2	43	7.6	52.5
14.42 12	57	99.5	0.1	15.06 10	9	1.6	2.6	17.28 2	21	3.7	44.1	16.36 7	37	6.5	50.7	16.35 7	43	7.6	53.1
16.53 7	57	99.5	0.6	14.37 12	10	1.7	3.8	17.75 2	21	3.7	0.3	17.56 2	37	6.5	53.3	17.72 2	43	7.6	53.6
17.87 2	57	99.5	1.7	17.73 2	10	1.8	0.3	17.38 2	21	3.7	3.3	17.24 2	37	6.5	1.3	16.68 5	43	7.6	54.8
16.19 7	58	99.6	2.6	17.60 2	10	1.8	0.4	17.68 2	22	3.8	1.0	16.35 7	37	6.6	45.8	15.63 7	43	7.6	57.4
17.56 2	57	99.6	3.4	17.16 2	10	1.8	1.2	17.54 2	22	3.8	3.3	16.65 2	37	6.6	48.6	13.94 14	43	7.6	0.4
16.47 7	58	99.7	0.5	17.38 2	11	1.9	43.2	17.61 2	22	3.9	44.2	16.72 6	37	6.6	51.5	16.41 7	43	7.7	50.8
17.80 2	58	99.7	1.5	15.70 7	11	1.9	44.3	13.39 15	22	3.9	1.6	17.52 2	38	6.6	52.4	16.32 7	43	7.7	51.0
16.64 6	59	99.8	43.6	17.68 2	11	1.9	0.4	16.48 6	22	3.9	2.0	15.47 7	38	6.7	47.0	16.04 7	43	7.7	51.1
17.33 2	59	99.8	43.7	16.18 7	11	1.9	2.0	17.24 2	22	3.9	3.2	17.54 2	38	6.7	47.1	16.43 7	43	7.7	52.0
17.38 2	59	99.8	44.7	17.44 2	11	2.0	44.4	16.68 4	23	4.0	2.1	17.54 2	38	6.7	47.3	17.59 2	43	7.7	52.9
16.35 7	59	99.8	2.3	16.54 6	11	2.0	2.2	16.38 6	23	4.1	1.4	16.07 7	38	6.7	55.7	16.60 6	44	7.8	50.6
17.64 2	59	99.8	3.6	17.56 2	12	2.0	3.8	16.10 7	23	4.1	2.3	16.71 6	38	6.7	56.1	17.25 2	44	7.8	51.0
17.59 2	59	99.8	3.9	16.50 6	12	2.1	44.1	17.35 2	24	4.2	0.1	16.25 7	38	6.7	57.0	17.46 2	44	7.8	52.1
15.75 7	59	99.8	5.0	17.32 2	12	2.1	44.3	17.46 2	24	4.3	44.6	17.64 2	38	6.7	58.8	17.52 2	44	7.8	52.4
16.74 5	59	99.9	0.1	16.24 6	12	2.1	0.9	16.57 6	24	4.3	2.9	15.48 7	39	6.8	46.5	17.64 2	44	7.8	53.2

25 prec. + $47^{s}.1$, + 3′ 46″

Area 39. Supplementary Stars

601s—620s				621s—640s				641s—660s				661s—673s			
Mag.	α 47ᵐ	x	y+50′	Mag.	α 47ᵐ	x	y+50′	Mag.	α 47ᵐ	x	y+50′	Mag.	α 47ᵐ	x	y+50′
	s	′	′		s	′	′		s	′	′		s	′	′
16.63 6	44	7.8	54.4	11.43 14	47	8.2	50.6	16.51 6	49	8.6	55.3	17.28 2	53	9.3	56.9
16.62 6	45	7.9	58.3	14.98 9	46	8.2	54.3	12.68 14	49	8.6	55.5	17.24 2	53	9.3	58.3
16.54 5	45	8.0	47.4	16.40 6	46	8.2	54.4	17.48 2	49	8.6	58.5	16.33 7	53	9.4	50.6
17.32 2	45	8.0	47.9	15.95 6	47	8.3	48.9	17.54 2	49	8.7	52.2	17.54 2	53	9.4	52.7
13.76 15	45	8.0	49.9	17.26 2	47	8.3	49.0	16.27 6	49	8.7	54.8	14.98 10	53	9.4	55.8
17.44 2	45	8.0	50.4	17.64 2	47	8.3	54.7	17.46 2	50	8.8	52.3	15.66 7	54	9.6	50.6
16.33 6	45	8.0	52.0	17.54 2	47	8.3	56.9	17.34 2	50	8.8	52.7	17.50 2	55	9.7	50.4
16.33 7	45	8.0	53.3	17.48 2	47	8.3	57.1	16.58 6	50	8.8	55.3	17.10 2	55	9.8	53.7
14.51 12	45	8.0	53.5	16.29 6	47	8.4	48.0	17.32 2	50	8.9	56.2	16.48 5	56	9.8	55.2
17.36 2	45	8.0	55.6	17.61 2	48	8.4	48.7	16.67 6	51	9.0	53.8	17.43 2	56	9.9	52.4
15.49 8	45	8.0	56.0	15.04 10	47	8.4	49.4	14.76 12	51	9.0	57.1	17.32 2	56	9.9	54.4
17.18 2	45	8.0	57.3	16.34 6	47	8.4	50.9	16.26 6	51	9.0	57.4	17.41 2	56	10.0	53.3
16.57 3	46	8.1	48.9	14.98 10	47	8.4	54.5	16.33 6	51	9.0	58.1	17.41 2	57	10.1	53.6
17.54 2	46	8.1	49.8	15.52 7	47	8.4	55.3	16.46 5	51	9.1	55.3				
16.56 6	46	8.1	57.9	16.58 6	47	8.4	57.4	16.54 2	52	9.2	51.8				
17.26 2	46	8.1	58.3	17.61 2	48	8.5	49.3	16.64 2	52	9.2	52.0				
17.32 2	46	8.1	58.7	17.68 2	48	8.5	53.4	16.35 6	52	9.2	52.4				
17.28 2	46	8.2	48.2	17.59 2	49	8.6	49.5	16.42 7	52	9.2	53.2				
15.90 7	47	8.2	50.0	15.06 10	49	8.6	50.2	14.59 11	52	9.2	55.5				
16.12 7	46	8.2	50.1	17.09 2	48	8.6	53.0	17.50 2	52	9.2	58.2				

25 prec. + $47^{s}.2$, + 3′ 46″

Area 40. Center for 1900: 20h 47m + 45° 0′ (15′ × 15′)

1—30				31—60				61—90				91—120				121—150			
Mag.	α 45ᵐ	x	y+60′ / y	Mag.	α 45ᵐ	x	y+60′ / y	Mag.	α 45ᵐ	x	y+60′ / y	Mag.	α 46ᵐ	x	y+60′ / y	Mag.	α 46ᵐ	x	y+60′ / y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.17 3	52.1	88.00	4 18	18.64 1	54.6	88.42	55 45	16.77 4	57.2	88.91	2 36	17.00 4	0.2	89.43	3 47	17.98 3	2.4	89.82	2 00
15.87 8	52.1	88.01	0 59	16.44 8	54.6	88.45	1 28	17.29 3	57.6	88.93	53 37	18.18 3	0.6	89.47	51 39	18.64 1	2.4	89.83	1 30
18.07 3	52.5	88.03	53 16	17.89 3	55.1	88.50	50 30	18.01 3	57.5	88.94	57 33	17.06 7	0.6	89.48	57 19	17.99 3	2.6	89.83	54 21
18.33 1	52.7	88.07	54 06	17.88 3	55.1	88.51	59 30	17.36 3	57.9	89.02	57 50	17.64 3	0.5	89.49	2 50	18.56 1	2.5	89.84	4 59
17.48 3	52.8	88.08	51 41	18.56 1	55.2	88.55	2 37	16.14 8	57.8	89.02	4 34	18.10 3	0.7	89.52	1 19	17.95 3	2.5	89.85	3 38
15.25 7	52.5	88.09	4 37	17.95 3	55.5	88.58	59 58	17.05 3	58.2	89.05	51 47	18.71 1	0.8	89.52	59 09	15.04 11	2.5	89.85	4 06
18.64 1	52.8	88.10	57 08	17.25 3	55.6	88.59	53 13	18.13 3	58.2	89.07	59 58	16.09 8	0.8	89.54	4 41	17.88 3	2.6	89.86	1 25
10.58w 8	52.7	88.11	0 24	16.70 7	56.1	88.67	51 23	17.91 3	58.3	89.10	0 04	18.71 1	1.0	89.56	58 56	18.71 1	2.7	89.86	55 44
16.81 8	53.1	88.14	52 36	17.03 4	55.8	88.67	2 29	18.56 1	58.6	89.15	4 42	18.56 1	1.1	89.56	50 36	18.07 3	2.8	89.87	52 37
16.02 8	53.0	88.15	57 23	18.56 1	55.8	88.67	1 12	18.21 3	58.8	89.16	56 48	17.42 3	1.1	89.57	50 15	17.02 8	2.6	89.88	0 04
18.15 3	53.0	88.15	57 43	16.65 6	55.9	88.68	3 32	16.90 8	58.8	89.17	59 57	17.11 5	1.0	89.57	58 15	17.93 3	3.0	89.90	53 18
18.56 1	52.9	88.15	4 27	12.61 14	56.2	88.68	52 13	16.88 8	59.0	89.18	53 39	18.26 3	1.2	89.58	50 25	18.33 1	3.0	89.91	58 32
17.10 3	53.1	88.16	55 55	17.95 3	56.1	88.72	0 04	18.33 1	58.9	89.20	2 50	18.19 3	1.0	89.58	0 08	18.64 1	3.0	89.94	2 18
17.07 3	53.0	88.17	4 46	18.64 1	56.6	88.77	54 44	17.82 3	59.3	89.23	54 02	18.56 1	1.1	89.59	59 46	18.64 1	3.2	89.94	54 18
16.50 6	53.1	88.19	2 23	18.20 3	56.6	88.77	50 31	16.95 4	59.1	89.24	4 08	18.56 1	1.2	89.62	3 47	18.07 3	3.3	89.97	57 04
18.48 1	53.3	88.21	1 08	16.74 4	56.4	88.77	2 17	18.64 1	59.5	89.27	54 09	18.75 3	1.5	89.64	55 13	12.04w 13	3.2	89.97	2 00
16.54 8	53.5	88.22	50 41	17.87 3	56.5	88.78	3 12	18.64 1	59.6	89.31	56 59	18.64 1	1.5	89 65	55 58	18.03 3	3.2	89.98	1 29
17.21 3	53.5	88.23	57 14	17.14 3	56.6	88.78	57 14	17.86 1	59.5	89.31	4 22	18.64 1	1.5	89.67	2 01	17.82 3	3.5	89.98	51 25
18.17 1	53.5	88.25	4 40	18.64 1	56.7	88.79	54 30	18.65 3	59.7	89.33	55 58	15.66 9	1.6	89.68	4 11	18.56 1	3.6	90.00	51 17
18.56 1	53.6	88.27	2 32	18.56 1	56.8	88.81	57 33	15.48 9	59.7	89.35	4 09	18.40 1	1.8	89.69	53 49	15.14 11	3.6	90.01	59 42
17.08 4	53.6	88.27	0 26	18.56 1	56.7	88.81	4 43	15.79 9	59.9	89.36	56 36	17.95 3	1.7	89.69	57 49	17.85 3	3.8	90.05	56 57
15.89 9	53.9	88.30	55 38	18.64 1	56.7	88.81	0 35	17.72 3	59.8	89.37	1 29	18.71 1	2.0	89.74	58 29	16.43 7	4.0	90.06	52 34
16.74 7	54.0	88.32	57 55	18.32 3	56.7	88.82	0 48	18.56 1	59.9	89.38	0 11	16.93 4	2.3	89.78	55 33	17.64 3	4.1	90.09	50 58
14.99 10	54.0	88.32	59 31	17.33 3	56.8	88.84	1 34	18.21 3	59.9	89.38	4 33	17.89 3	2.4	89.78	54 22	16.70 6	4.1	90.09	50 44
18.23 3	53.9	88.32	3 33	18.56 1	57.1	88.86	58 32	16.72 8	60.0	89.40	1 50	17.93 3	2.5	89.80	51 34	16.44 8	4.0	90.09	59 49
18.64 1	54.2	88.33	54 57	17.50 3	57.0	88.87	1 01	18.30 3	60.1	89.40	59 50	18.56 1	2.5	89.81	51 17	15.17 9	4.1	90.10	55 06
18.56 1	54.4	88.36	52 19	16.90 3	57.1	88.88	3 32	14.53 8	60.2	89.40	53 44	15.43 9	2.4	89.81	57 42	16.43 8	4.2	90.10	50 31
16.97 7	54.5	88.40	58 18	18.60 3	57.1	88.89	4 18	17.92 3	60.2	89.40	53 13	17.49 3	2.4	89.81	58 11	18.03 3	4.2	90.12	57 09
16.29 8	54.3	88.40	3 45	18.40 1	57.3	88.89	53 25	18.25 1	60.2	89.41	59 21	17.79 3	2.4	89.81	58 56	16.98 7	4.1	90.13	1 30
18.17 3	54.4	88.41	2 12	18.56 1	57.2	88.91	1 28	17.94 3	60.1	89.41	0 03	18.06 3	2.4	89.82	3 20	18.56 1	4.4	90.14	50 03

25 prec. + $51^{s}.9$, + 5′ 32″

151—210				
Mag.		α 46m	x	y+60′ / y
		s	′	′ ″
17.84	3	4.2	90.15	4 03
17.09	4	4.3	90.16	4 25
17.82	3	4.6	90.21	1 16
18.03	3	4.7	90.22	56 21
17.63	3	4.8	90.23	59 28
18.56	1	4.9	90.23	50 25
17.19	5	5.0	90.25	52 53
18.25	3	5.2	90.29	54 18
17.27	3	5.2	90.31	4 37
17.00	2	5.2	90.32	4 06
17.73	3	5.3	90.32	56 49
17.08	3	5.4	90.32	50 16
17.02	5	5.5	90.33	53 09
17.98	3	5.5	90.37	3 42
18.71	1	5.8	90.41	57 17
18.06	2	5.9	90.45	2 56
18.48	1	6.1	90.49	0 35
14.41	10	6.2	90.49	56 26
18.64	1	6.3	90.49	52 44
17.05	3	6.3	90.50	55 32
17.13	3	6.3	90.51	1 56
14.35	11	6.4	90.53	1 52
15.97	9	6.6	90.57	1 36
18.71	1	6.8	90.58	59 09
18.40	1	6.7	90.59	0 18
15.37	9	6.7	90.59	0 13
18.40	1	6.9	90.59	53 43
17.99	3	6.8	90.60	2 22
18.71	1	7.0	90.62	57 52
18.02	3	7.1	90.65	2 54
15.84	9	7.3	90.66	59 44
18.40	1	7.4	90.68	58 34
17.14	3	7.4	90.68	56 28
16.88	4	7.3	90.68	4 04
18.71	1	7.4	90.69	55 37
17.62	3	7.5	90.71	58 56
16.34	8	7.6	90.75	1 53
15.95	8	7.9	90.76	52 44
16.77	8	8.0	90.78	51 45
16.82	8	7.8	90.78	4 54
18.40	1	8.1	90.81	59 39
18.71	1	8.2	90.82	54 26
17.04	8	8.0	90.82	2 33
14.37	11	8.3	90.83	54 38
18.48	1	8.3	90.86	1 38
16.82	8	8.5	90.90	0 57
16.04	9	8.6	90.91	2 52
18.10	3	8.7	90.93	4 16
18.48	1	8.8	90.93	54 19
17.44	3	8.9	90.94	52 50
18.31	3	8.8	90.95	59 08
18.48	1	8.9	90.96	0 09
13.80	13	8.9	90.97	59 52
16.69	4	9.0	90.98	55 25
17.36	3	9.1	91.01	4 28
15.12	9	9.1	91.01	3 18
18.64	1	9.3	91.02	54 49
13.72	14	9.4	91.03	52 16
17.41	3	9.3	91.05	3 45
18.64	1	9.7	91.09	51 41

211—270				
Mag.		α 46m	x	y+60′ / y
		s	′	′ ″
14.56	8	9.9	91.11	52 57
16.80	8	9.9	91.14	57 58
18.79	1	10.1	91.16	58 39
18.01	3	10.3	91.18	53 46
17.17	3	10.1	91.18	4 49
17.23	3	10.2	91.19	55 58
17.98	3	10.3	91.21	5 00
18.22	3	10.6	91.26	55 35
18.00	3	10.7	91.29	55 43
18.56	1	10.8	91.29	50 31
15.57	9	10.8	91.31	0 04
18.43	3	10.9	91.32	2 28
17.29	3	10.9	91.32	57 09
17.40	3	11.0	91.32	54 18
18.07	3	11.1	91.33	54 11
18.21	2	11.2	91.35	53 09
18.06	3	11.3	91.36	53 06
13.84	13	11.2	91.37	57 39
18.40	1	11.2	91.38	3 02
18.40	1	11.4	91.39	54 25
17.04	8	11.5	91.42	59 40
17.17	7	11.5	91.43	0 25
18.64	1	11.5	91.44	3 54
17.93	3	11.7	91.46	3 04
15.66	8	11.7	91.47	1 10
18.03	3	11.9	91.48	57 22
14.87	11	11.9	91.49	56 01
16.28	9	12.0	91.50	55 27
18.64	1	12.1	91.54	2 43
18.25	1	12.1	91.54	3 32
18.36	3	12.3	91.56	0 09
16.25	8	12.3	91.57	4 04
17.75	3	12.3	91.57	57 46
18.71	1	12.5	91.61	2 23
15.04	9	12.5	91.61	2 01
18.01	3	12.6	91.62	55 24
18.25	1	12.6	91.63	3 09
18.64	1	12.7	91.65	3 45
17.62	3	13.0	91.68	59 16
18.56	1	12.9	91.69	4 12
17.81	3	13.0	91.70	4 23
17.23	3	13.2	91.70	54 41
16.21	8	13.2	91.71	58 26
17.80	2	13.1	91.72	4 18
18.79	1	13.3	91.73	56 12
15.51	9	13.6	91.77	53 08
16.80	8	13.6	91.77	53 25
18.07	3	13.7	91.81	59 06
16.84	8	13.7	91.81	58 38
17.70	3	13.8	91.83	1 08
18.36	3	13.8	91.83	0 28
17.25	3	13.9	91.85	2 34
16.97	4	13.9	91.85	3 14
17.18	3	14.5	91.97	2 02
18.64	1	14.7	91.97	51 13
18.33	1	14.7	92.00	4 42
15.40	9	14.8	92.01	4 53
15.81	9	15.1	92.05	57 40
16.85	8	15.3	92.08	59 55
17.54	3	15.3	92.08	58 23

271—330				
Mag.		α 46m	x	y+60′ / y
		s	′	′ ″
17.56	3	15.3	92.08	58 27
16.14	8	15.4	92.11	59 03
18.08	3	15.5	92.14	1 21
17.99	3	15.6	92.15	3 33
18.28	3	15.7	92.17	57 09
17.94	3	15.8	92.17	53 55
15.37	9	15.7	92.17	4 21
17.82	3	15.8	92.18	0 52
17.91	3	16.4	92.26	54 18
18.79	1	16.4	92.26	54 40
16.71	8	16.2	92.26	5 00
15.49	9	16.2	92.27	1 57
17.04	5	16.5	92.32	4 16
17.76	3	16.7	92.33	53 50
17.55	3	16.8	92.36	4 24
18.64	1	16.9	92.37	50 48
17.05	7	17.0	92.40	1 54
17.54	3	17.2	92.42	59 18
18.03	3	17.4	92.45	53 57
17.14	3	17.8	92.51	53 25
18.87	1	17.7	92.52	58 26
18.10	1	17.8	92.53	58 23
17.46	3	17.7	92.53	0 49
17.93	3	18.2	92.58	51 48
15.94	4	18.2	92.58	51 01
17.93	3	18.1	92.58	59 04
18.08	3	18.1	92.59	59 29
16.77	8	18.0	92.59	2 38
16.68	7	18.2	92.59	54 34
17.82	3	18.2	92.59	50 38
18.46	3	18.4	92.63	56 58
15.33	9	18.3	92.63	1 44
18.71	1	18.5	92.67	2 44
18.71	1	18.5	92.67	1 16
17.80	3	18.6	92.67	53 29
18.79	1	18.6	92.69	0 21
17.63	3	18.7	92.70	0 09
15.12	9	18.7	92.71	4 22
17.63	3	18.8	92.72	3 02
17.53	3	18.9	92.72	54 38
17.17	7	19.0	92.75	58 08
18.13	3	19.1	92.76	56 34
18.71	1	19.2	92.77	52 53
18.64	1	19.1	92.78	3 14
18.64	1	19.2	92.80	3 58
17.23	3	19.2	92.80	4 55
18.64	1	19.5	92.81	50 41
18.00	3	19.4	92.84	3 24
18.17	3	19.4	92.84	2 59
18.71	1	19.5	92.85	2 50
18.05	3	19.8	92.88	59 50
17.81	3	19.8	92.88	56 14
15.48	8	19.8	92.90	4 48
18.71	1	20.1	92.92	53 46
18.02	1	20.0	92.94	2 01
15.37	9	20.0	92.94	2 20
17.40	3	20.1	92.95	1 52
17.06	8	20.2	92.97	0 40
15.11	10	20.3	92.97	50 59
18.19	3	20.4	92.98	54 06

331—390				
Mag.		α 46m	x	y+60′ / y
		s	′	′ ″
18.10	1	20.4	92.99	52 03
18.33	3	20.7	93.04	50 25
17.37	3	20.7	93.06	1 10
15.94	9	20.7	93.07	0 16
17.72	3	20.9	93.10	2 08
14.02:	1	21.1	93.12	58 22
16.97	8	21.2	93.13	54 49
17.37	3	21.4	93.16	54 56
17.87	3	21.4	93.16	59 57
18.40	1	21.5	93.19	57 55
18.02	3	21.5	93.19	59 40
18.29	3	21.6	93.21	59 28
18.64	1	21.8	93.24	57 33
18.33	1	21.8	93.25	3 32
18.64	1	22.0	93.26	53 13
18.41	3	22.0	93.27	54 01
18.48	1	21.9	93.27	59 53
18.40	1	22.1	93.30	59 42
17.77	3	22.1	93.31	0 53
18.79	1	22.3	93.32	54 55
17.73	3	22.3	93.33	55 59
17.70	3	22.3	93.33	58 47
17.85	3	22.3	93.35	1 11
17.05	8	22.4	93.36	1 21
18.71	1	22.4	93.36	3 40
16.80	4	22.6	93.36	52 59
18.03	3	22.4	93.37	1 32
15.87	9	22.4	93.37	4 03
18.71	1	22.8	93.41	52 35
16.72	7	22.8	93.42	55 30
18.46	3	22.8	93.42	57 39
14.96	11	23.0	93.45	53 48
17.79	3	23.2	93.48	59 20
14.83	11	23.2	93.49	55 27
16.37	7	23.2	93.49	51 07
17.76	3	23.2	93.50	2 22
16.95	8	23.3	93.51	3 02
17.23	3	23.4	93.53	3 50
15.53	9	23.6	93.57	1 59
18.79	1	23.8	93.60	0 20
18.25	3	23.8	93.61	2 11
18.87	1	23.9	93.62	59 08
17.35	3	24.2	93.66	57 42
16.96	6	24.4	93.68	54 13
15.52	9	24.8	93.79	0 37
18.25	1	24.9	93.80	4 26
18.34	3	24.9	93.80	2 04
13.85	13	24.9	93.80	3 03
16.98	4	25.0	93.81	3 10
16.53	9	25.1	93.82	54 43
17.41	3	25.1	93.83	58 28
18.79	1	25.4	93.88	1 29
18.56	1	25.6	93.91	56 41
18.87	1	25.6	93.92	59 52
17.66	3	25.7	93.92	53 19
16.99	8	25.7	93.94	4 44
17.27	3	25.8	93.94	51 22
18.42	3	25.9	93.95	54 04
18.64	1	25.9	93.95	52 21
18.29	3	26.0	93.96	54 15

391—450				
Mag.		α 46m	x	y+60′ / y
		s	′	′ ″
18.64	1	25.9	93.98	3 28
17.58	3	26.1	93.99	53 01
18.42	3	26.0	94.00	3 23
18.25	1	26.1	94.01	0 00
15.98	8	26.4	94.04	53 05
18.49	3	26.5	94.06	58 24
17.97	3	26.4	94.07	4 49
17.44	3	26.6	94.10	1 11
17.42	3	26.7	94.12	1 00
18.56	1	27.0	94.17	58 14
18.07	3	27.1	94.18	4 19
17.61	3	27.1	94.19	1 24
18.30w	2	27	94.2	51 12
17.56	3	27.4	94.21	51 16
17.73	3	27.3	94.22	57 07
18.64	1	27.5	94.23	52 40
16.06	8	27.4	94.23	59 34
18.28	4	27.3	94.23	3 36
18.03	3	27.5	94.26	2 18
18.11	3	27.5	94.27	3 45
18.71	1	27.7	94.27	52 23
17.65	3	27.7	94.28	57 53
18.94	1	27.7	94.29	57 31
17.13	8	27.9	94.32	59 24
17.67	3	27.9	94.33	1 31
13.10w	14	28.1	94.34	50 16
18.79	1	28.0	94.35	0 08
18.48	1	28.1	94.35	58 48
18.02	3	28.1	94.36	0 57
17.62	3	28.3	94.38	56 39
12.01w	13	28.3	94.38	51 13
17.80	3	28.3	94.39	52 43
18.71	1	28.4	94.41	59 13
18.31	3	28.4	94.42	1 34
16.84	8	28.5	94.43	0 56
17.84	3	28.7	94.47	1 30
18.35	3	28.8	94.49	56 09
16.75	7	28.8	94.49	58 22
18.39	3	29.0	94.51	59 12
18.13	3	29.0	94.52	59 21
18.48	1	29.1	94.53	52 51
17.24	7	29.1	94.55	1 53
14.74	11	29.1	94.55	0 08
16.07	9	29.2	94.57	0 33
16.50	8	29.3	94.57	50 19
14.59	11	29.6	94.62	57 10
18.10	1	29.6	94.63	2 55
17.60	3	29.7	94.64	58 31
16.29	8	29.7	94.64	57 31
18.71	1	29.7	94.65	2 49
18.41	3	29.9	94.66	52 15
16.27	8	30.1	94.70	59 33
13.35	16	30.2	94.72	57 37
18.64	1	30.1	94.72	0 16
17.98	3	30.2	94.73	58 52
18.56	1	30.3	94.73	53 46
17.64	3	30.4	94.76	59 02
16.87	4	30.5	94.77	53 38
18.40	1	30.5	94.79	4 54
18.60	2	30.6	94.80	1 28

25 prec. + $51\overset{\mathrm{s}}{.}9$, + 5′ 33″

451—510				
Mag.		α 46^{m}	x	$y+60'$ / y
		s	′	′ ″
17.35	3	30.7	94.82	1 23
16.96	4	30.8	94.83	54 43
17.89	3	30.8	94.85	2 39
14.87	10	31 0	94.86	59 52
17.29	2	31.0	94.88	58 24
15.74	8	31.1	94.90	2 19
17.08	6	31.3	94.92	58 51
18.56	3	31.6	94.96	53 13
18.87	1	31.6	94.98	0 03
18.13	3	31.8	95.01	58 54
18.31	3	31.9	95.02	54 55
16.95	3	32.1	95.05	50 06
15.59	9	32.1	95.05	52 27
18.40	1	32.2	95.08	4 29
15.67	9	32.2	95.08	55 30
17.28	3	32.3	95.10	1 27
17.31	3	32.5	95.14	0 29
16.68	8	32.8	95.19	57 14
18.48	1	32.9	95.20	53 40
18.33	1	33.0	95.22	59 13
13.72	12	33.0	95.23	58 28
18.01	3	33.2	95.26	57 49
17.58	3	33.2	95.26	58 47
9.84w	8	33.3	95.28	58 21
18.40	3	33.5	95.31	57 19
18.87	1	33.6	95.34	56 19
18.64	1	33.6	95.34	3 59
14.99	9	33.7	95.34	54 33
18.40	3	33.8	95.37	57 33
18.17	1	33.9	95.39	59 44
17.69	3	33.9	95.39	55 48
18.33	1	34.0	95.41	4 08
17.20	3	34.0	95.41	5 00
18.11	3	34.1	95.43	4 43
16.69	8	34.2	95.44	2 43
17.32	7	34.3	95.45	59 49
17.08	4	34.3	95.46	2 13
18.71	3	34.5	95.49	58 11
16.15	8	34.7	95.52	59 58
18.71	1	34.9	95.57	57 19
17.94	3	34.9	95.57	1 02
18.14	3	35.3	95.63	50 12
17.31	3	35.4	95.64	51 04
18.64	1	35.6	95.68	3 59
18.10	2	35.7	95.71	0 30
17.44	7	36.2	95.78	58 38
15.92	9	36.2	95.79	58 45
18.01	3	36.5	95.83	54 05
18.71	1	36.5	95.85	2 57
16.88	8	36.5	95.85	0 42
18.25	1	36.6	95.86	58 30
18.71	1	36.7	95.88	3 24
17.87	3	36.7	95.88	1 43
17.57	3	36.9	95.92	55 50
16.99	8	37.1	95.95	3 40
17.93	3	37.1	95.95	3 52
16.84	3	37.2	95.97	52 42
17.42	3	37.3	95.98	4 34
18.64	1	37.3	95.98	2 35
17.18	5	37.3	95.99	57 49

511—570				
Mag.		α 46^{m}	x	$y+60'$ / y
		s	′	′ ″
18.76	3	37.4	96.00	58 03
18.08	3	37.5	96.02	59 08
17.35	5	37.5	96.02	56 42
17.48	3	37.5	96.02	1 26
18.79	1	37.6	96.05	1 17
18.20	3	37.7	96.07	3 08
12.53w	13	38.0	96.10	51 09
15.33	11	38.3	96.16	57 48
18.71	3	38.3	96.17	57 42
14.75	9	38.4	96.17	51 02
17.78	3	38.5	96.18	52 27
17.94	3	38.4	96.19	0 19
18.79	1	38.9	96.26	0 11
18.79	1	39.0	96.28	0 56
17.33	3	39.1	96.30	58 02
18.64	1	39.1	96.31	4 50
18.26	3	39.2	96.32	3 30
17.54	3	39.2	96.32	50 59
17.71	3	39.2	96.32	58 29
17.93	3	39.3	96.33	57 05
17.61	3	39.3	96.33	50 56
18.79	1	39.3	96.35	1 43
18.87	1	39.7	96.41	59 04
18.71	1	39.8	96.43	3 12
17.52	3	39.8	96.44	2 12
18.79	1	39.9	96.45	1 32
18.87	1	40.0	96.46	58 54
15.81	8	40.0	96.46	0 01
18.31	3	40.0	96.47	1 14
18.19	3	40.0	96.47	3 06
17.09	3	40.2	96.48	51 52
17.47	3	40.2	96.50	59 35
18.12	3	40.3	96.51	1 15
17.26	5	40.3	96.52	57 05
17.21	5	40.5	96.55	54 19
16.92	8	40.6	96.56	0 35
18.56	1	40.8	96.61	3 48
17.60	3	40.9	96.62	58 10
18.79	1	41.0	96.64	54 20
18.71	1	41.0	96.64	2 45
17.76	3	41.1	96.67	0 29
17.98	3	41.4	96.71	58 45
17.60	3	41.4	96.71	59 05
18.87	1	41.6	96.74	59 42
18.64	1	41.6	96.75	4 49
16.31	6	41.8	96.78	2 27
17.47	3	41.8	96.79	55 10
17.59	3	42.0	96.82	4 40
17.45	3	42.2	96.85	4 31
17.22	4	42.2	96.85	58 46
16.65	3	42.2	96.85	51 16
16.20	9	42.3	96.86	57 45
18.87	1	42.3	96.87	57 11
15.27	11	42.4	96.88	59 36
18.56	1	42.7	96.93	51 12
16.61	8	42.6	96.93	2 56
18.21	3	42.7	96.94	1 07
17.47	3	42.9	96.96	54 51
13.41	16	42.9	96.99	59 59
17.40	3	43.0	97.00	4 59

571—630				
Mag.		α 46^{m}	x	$y+60'$ / y
		s	′	′ ″
18.87	1	43.5	97.08	56 08
17.36	3	43.6	97.10	4 41
18.87	1	44.0	97.17	59 53
18.82	3	44.2	97.20	53 16
18.22	3	44.2	97.21	55 52
16.55	9	44.3	97.22	55 31
17.29	3	44.3	97.22	4 30
17.20	4	44.5	97.26	3 14
17.43	3	44.5	97.26	58 13
18.40	1	44.5	97.27	3 28
17.20	6	44.6	97.28	1 26
18.79	3	44.8	97.31	51 23
18.20	3	44.8	97.32	55 22
18.24	3	44.9	97.33	3 12
17.12	6	45.1	97.37	1 57
16.99	3	45.1	97.37	51 08
16.32	9	45.2	97.39	58 14
17.38	3	45.4	97.42	58 04
16.48	8	45.4	97.42	3 03
18.79	1	45.6	97.45	56 12
18.79	1	45.8	97.49	58 48
17.61	3	46.0	97.52	57 19
17.47:	1	46.1	97.55	2 10
18.11	3	46.2	97.56	0 14
17.80	3	46.5	97.61	1 07
17.89	3	46.6	97.63	53 14
18.71	1	46.7	97.64	53 09
18.07	3	46.7	97.65	57 33
16.44	4	46.7	97.65	4 42
17.63	3	46.8	97.67	3 28
17.69	3	46.9	97.68	56 03
18.79	1	46.9	97.69	1 24
18.19	3	47.0	97.71	1 51
18.02	3	47.1	97.72	3 01
18.01	3	47.2	97.74	4 49
17.19	3	47.2	97.75	2 43
18.56	1	47.4	97.76	56 38
17.15	3	47.6	97.82	3 37
18.71	1	47.7	97.82	54 45
18.64	1	48.0	97.86	51 47
17.27	3	47.9	97.87	0 57
16.86	8	47.9	97.87	0 44
18.79	1	48.0	97.88	56 00
15.07	10	48.1	97.89	51 09
15.72	9	48.0	97.89	3 04
18.71	1	48.2	97.91	1 39
17.40	3	48.3	97.93	4 25
18.79	1	48.3	97.94	57 05
15.40	10	48.4	97.95	55 06
16.89	8	48.4	97.95	1 53
16.12	6	48.5	97.96	2 48
16.91	3	48.6	97.99	52 02
17.79	3	48.8	98.01	57 58
16.85	8	48.9	98.05	3 24
17.39	3	49.0	98.05	50 56
17.34	3	49.1	98.08	1 56
16.93	3	49.2	98.09	50 37
17.48	3	49.3	98.11	59 44
18.64	1	49.3	98.11	4 38
18.64	1	49.3	98.11	4 04

631—690				
Mag.		α 46^{m}	x	$y+60'$ / y
		s	′	′ ″
18.79	1	49.5	98.15	0 42
17.47	3	49.6	98.17	55 07
18.64	1	49.7	98.19	53 58
16.72	4	49.9	98.21	1 09
18.59	3	50.0	98.23	56 14
16.86	8	50.1	98.25	2 54
18.64	1	50.5	98.32	1 59
16.94	7	50.5	98.32	58 18
15.83	9	50.6	98.34	0 12
15.60	9	50.9	98.40	2 48
18.64	1	51.0	98.41	0 58
18.33	3	51.0	98.41	56 07
17.76	3	51.1	98.43	58 15
15.75	9	51.3	98.47	56 44
17.81	3	51.4	98.48	4 52
17.27	3	51.5	98.50	3 23
17.32	3	51.5	98.50	59 22
14.16	13	51.5	98.50	53 36
13.88	13	51.6	98.51	53 52
16.00	9	51.6	98.51	50 54
17.77	3	51.6	98.52	59 14
16.83	8	51.7	98.53	56 04
18.18	3	51.7	98.53	54 09
16.30	6	51.7	98.54	50 55
17.72	3	51.8	98.55	53 10
18.06	3	51.9	98.56	54 46
16.83	4	52.1	98.60	4 23
18.33	1	52.2	98.63	4 05
17.45	3	52.3	98.63	52 46
18.16	3	52.3	98.63	51 04
18.42	3	52.5	98.67	57 49
18.64	1	52.7	98.71	3 41
15.34	10	52.8	98.73	56 19
17.40	3	52.9	98.75	4 13
18.33	1	53.0	98.76	3 40
18.79	1	53.1	98.78	59 33
17.03	7	53.2	98.80	53 58
17.93	3	53.3	98.81	4 30
16.93	8	53.3	98.82	2 44
18.27	3	53.4	98.83	58 05
17.47	3	53.4	98.83	58 19
18.10	1	53.4	98.84	1 54
18.79	1	53.4	98.84	56 30
18.64	3	53.5	98.85	57 39
18.71	1	53.6	98.87	55 52
17.17	3	53.6	98.87	56 44
16.94	4	53.7	98.89	3 59
17.84	3	53.8	98.90	3 21
13.97	4	53.8	98.91	2 32
18.71	1	53.9	98.93	55 26
18.64	1	54.0	98.94	4 03
18.71	1	54.2	98.99	2 12
18.56	1	54.4	99.01	50 41
18.54	2	54.5	99.03	51 09
17.91	3	54.5	99.04	3 05
16.22	9	54.7	99.06	0 34
18.79	1	54.8	99.08	59 03
15.70	9	54.8	99.09	52 01
15.90	9	55.1	99.13	1 24
17.81	3	55.1	99.14	4 44

691—750				
Mag.		α 46^{m}	x	$y+60'$ / y
		s	′	′ ″
18.56	1	55.1	99.14	53 29
17.51	3	55.2	99.15	58 39
16.97	8	55.3	99.17	0 42
18.09	3	55.4	99.18	57 28
17.77	3	55.4	99.18	52 32
18.11	3	55.5	99.20	0 33
11.62w	11	55.6	99.22	59 20
18.64	1	55.7	99.23	53 13
18.71	1	55.7	99.24	1 18
16.85	8	55.7	99.24	0 44
16.88	8	55.7	99.25	4 03
17.34	3	55.7	99.25	56 04
18.10	3	56.1	99.31	59 59
18.71	1	56.1	99.32	55 36
18.10	1	56.2	99.32	54 14
16.28	6	56.4	99.36	59 49
18.56	1	56.5	99.38	4 17
16.92	8	56.6	99.40	3 59
18.56	1	56.8	99.44	53 30
17.01	8	57.0	99.46	59 22
17.37	3	57.0	99.46	0 20
16.94	4	57.0	99.47	1 19
16.89	8	57.1	99.48	4 00
18.47	3	57.1	99.48	56 59
18.71	1	57.2	99.51	58 58
18.16	2	57.6	99.58	53 45
17.91	3	57.7	99.60	55 50
17.09	4	57.8	99.61	2 46
17.49	3	57.9	99.63	51 24
15.70	9	57.9	99.63	53 33
18.24	3	58.0	99.65	1 27
18.64	1	58.1	99.66	51 44
16.90	6	58.4	99.72	54 48
18.15	3	58.4	99.72	57 53
18.02	3	58.4	99.72	0 07
16.93	3	58.5	99.74	52 19
18.56	1	58.7	99.76	4 15
18.56	1	58.7	99.77	51 09
16.70:	1	58.8	99.79	58 13
17.01*	1	58.9	99.80	2 14
15.95	9	58.9	99.81	3 29
18.25	1	59.0	99.83	2 15
17.81	3	59.0	99.83	58 25
16.94	8	59.1	99.84	3 06
16.89	4	59.3	99.88	1 30
17.90	3	59.3	99.88	53 20
17.25	3	59.5	99.91	57 01
16.79	8	59.5	99.92	3 53
17.82	3	59.6	99.93	51 44
18.01	3	59.6	99.94	57 04
17.78	3	59.6	99.94	50 35
16.88	8	59.8	99.97	54 23
18.09	3	59.8	99.97	51 52
17.07	3	59.8	99.97	4 04
18.07	3	60.1	0.01	56 27
15.56:	1	60.1	0.02	57 03
18.80	2	60.2	0.04	59 42
18.56	3	60.6	0.11	50 32
17.89	3	60.6	0.11	4 03
16.76	4	60.7	0.12	3 30

25 prec. + $52^{\mathrm{s}}.0$, + 5′ 33″

751—810				811—870				871—930				931—958			
Mag.	α 47ᵐ	x	$y+60'$ / y	Mag.	α 47ᵐ	x	$y+60'$ / y	Mag.	α 47ᵐ	x	$y+60'$ / y	Mag.	α 47ᵐ	x	$y+60'$ / y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
18.39 3	0.7	0.12	54 28	17.21 3	5.9	1.04	58 05	15.13 7	9.8	1.74	51 16	18.28 3	14.5	2.57	53 29
18.71 1	0.8	0.15	58 58	17.82 3	5.9	1.04	59 23	18.07 3	10.0	1.76	55 26	18.33 1	14.6	2.58	53 39
17.94 3	1.0	0.19	50 45	18.64 1	6.0	1.06	2 07	18.23 3	10.0	1.77	53 07	17.97 3	14.6	2.58	1 39
18.45 3	1.0	0.19	0 00	18.02 1	6.0	1.07	58 45	16.99 4	10.1	1.78	0 02	17.74 3	14.6	2.59	51 14
16.47 8	1.2	0.21	1 00	16.85 5	6.0	1.07	53 48	18.56 1	10.1	1.79	2 20	17.74 3	14.7	2.60	0 38
17.64 3	1.3	0.23	50 09	18.64 1	6.1	1.08	54 30	17.03 3	10.1	1.79	56 39	18.25 1	14.9	2.63	0 39
17.06 3	1.3	0.23	55 22	17.78 3	6.2	1.10	4 28	16.81 8	10.3	1.82	2 23	18.17 1	15.1	2.66	55 04
17.09 3	1.3	0.24	57 09	17.98 3	6.3	1.11	4 05	18.48 1	10.4	1.85	50 59	12.07w14	15.1	2.66	55 21
18.12 2	1.5	0.26	58 43	17.57 3	6.3	1.12	59 11	18.40 1	10.6	1.89	50 10	17.21 4	15.3	2.71	59 45
17.86 3	1.5	0.26	58 19	13.70 14	6.4	1.13	57 38	15.23 9	10.6	1.89	55 30	17.13 3	15.3	2.71	3 30
18.64 1	1.5	0.26	0 41	18.56 1	6.4	1.13	2 59	18.56 1	10.9	1.94	52 39	17.17 3	15.6	2.76	4 17
17.77 3	1.6	0.29	59 37	17.74 3	6.6	1.16	56 22	18.07 3	11.2	1.98	58 01	18.15 3	15.6	2.77	52 10
17.28 3	1.7	0.30	55 53	18.40 1	6.6	1.17	50 09	16.15 9	11.2	1.98	1 23	18.04 3	15.7	2.78	51 52
17.93 3	1.8	0.32	57 09	12.43w14	6.7	1.18	55 58	16.77 4	11.2	1.99	54 14	16.52 8	15.7	2.78	55 59
17.29 3	1.8	0.32	54 46	17.73 3	6.7	1.18	59 38	18.25 1	11.3	2.00	1 55	17.89 3	16.0	2.83	53 04
17.24 3	1.9	0.33	58 40	18.64 1	6.8	1.20	54 15	17.60 3	11.4	2.01	4 59	17.41 3	16.3	2.88	57 42
18.48 1	2.1	0.37	4 09	15.72 9	6.9	1.21	1 38	15.84 9	11.4	2.01	3 11	17.36 3	16.3	2.88	59 02
17.88 3	2.3	0.40	52 14	17.32 3	6.9	1.21	2 44	18.10 1	11.4	2.01	57 38	17.11 3	16.3	2.89	57 28
15.59 9	2.3	0.41	50 07	18.64 1	6.8	1.21	58 49	17.54 3	11.4	2.02	55 56	17.83 3	16.3	2.89	4 35
16.68 8	2.4	0.43	1 59	17.96 3	6.9	1.22	54 25	17.05 3	11.4	2.02	53 52	18.33 3	16.4	2.91	51 46
16.50 8	2.5	0.44	1 05	18.64 1	7.1	1.26	58 21	17.29 3	11.5	2.03	4 20	16.63 8	16.5	2.92	53 54
18.64 1	2.5	0.44	55 36	18.61 3	7.1	1.27	58 13	16.84 3	11.5	2.04	0 34	18.40 1	16.5	2.92	3 47
18.10 1	2.5	0.45	2 25	17.92 3	7.1	1.27	59 12	16.87 4	11.6	2.05	59 12	18.48 1	16.5	2.92	4 09
17.60 3	2.6	0.47	0 19	17.73 3	7.2	1.27	0 45	18.21 3	11.5	2.05	53 43	18.56 1	16.6	2.95	52 26
18.19 3	2.6	0.47	55 38	18.25 1	7.1	1.27	54 17	18.56 1	11.6	2.06	51 39	18.33 1	16.8	2.97	56 53
14.11 11	2.7	0.49	55 04	18.48 1	7.1	1.27	51 44	18.33 1	11.7	2.07	57 05	16.94 4	16.8	2.97	0 28
15.30 11	2.9	0.51	59 04	17.70 3	7.1	1.27	50 39	17.08 4	11.8	2.08	1 26	14.34 11	16.9	2.98	4 29
17.37 3	2.9	0.51	52 13	15.54 9	7.4	1.31	56 56	17.96 3	11.8	2.08	4 55	16.34 8	16.8	2.99	53 48
17.75 3	3.0	0.54	0 16	17.68 3	7.5	1.33	3 26	17.20 3	11.8	2.09	0 07				
17.89 3	3.0	0.54	3 45	17.77 3	7.5	1.33	50 51	17.87 3	11.8	2.09	56 30				
18.56 1	3.2	0.56	4 45	18.15 3	7.5	1.34	54 02	15.67 9	11.9	2.10	55 10				
17.10 3	3.3	0.58	2 04	18.05 3	7.6	1.34	0 56	16.98 4	12.1	2.13	3 19				
16.22 9	3.3	0.59	52 23	17.86 3	7.6	1.35	52 26	17.09 3	12.3	2.17	4 55				
17.87 3	3.5	0.61	58 34	18.48 1	7.8	1.39	51 19	17.86 3	12.6	2.23	56 43				
18.40 1	3.6	0.63	59 50	18.64 1	7.8	1.39	56 47	15.52 9	12.6	2.24	53 10				
18.71 1	3.6	0.64	57 30	18.31 3	8.0	1.41	55 20	15.28 9	12.8	2.26	50 00				
18.71 1	3.8	0.66	56 40	17.15 3	8.0	1.41	58 16	17.03 4	12.9	2.28	1 49				
17.53 3	3.8	0.69	51 35	16.02 9	8.0	1.42	0 58	17.27 3	12.9	2.29	52 03				
17.72 3	3.9	0.70	54 24	17.26 3	8.1	1.43	58 22	17.27 3	13.0	2.31	50 46				
17.60 3	4.0	0.70	59 03	17.94 3	8.2	1.45	4 03	17.50 3	13.1	2.31	57 03				
18.64 1	4.0	0.71	0 49	16.73 8	8.3	1.46	59 51	18.56 1	13.1	2.31	59 58				
17.94 2	4.2	0.74	4 47	18.23 3	8.4	1.48	51 07	18.64 1	13.1	2.32	59 13				
15.46 10	4.2	0.74	58 37	18.56 1	8.4	1.48	53 00	16.95 4	13.2	2.33	4 43				
18.64 1	4.6	0.81	58 46	18.06 3	8.6	1.52	54 28	17.34 3	13.2	2.33	1 55				
18.64 1	4.7	0.83	57 29	17.54 3	8.6	1.52	4 40	18.25 1	13.3	2.35	2 06				
17.08 3	4.7	0.83	59 03	14.61 12	8.8	1.56	55 35	18.47 3	13.3	2.37	51 22				
18.01 3	4.7	0.84	0 57	17.39 3	8.8	1.57	51 54	17.94 3	13.5	2.38	0 45				
17.60 3	4.8	0.85	2 09	18.01 3	8.9	1.57	0 01	18.56 1	13.5	2.39	3 07				
15.74 9	4.9	0.86	3 21	17.44 3	9.0	1.58	2 15	17.45 3	13.7	2.42	3 21				
18.40 1	4.9	0.86	53 53	17.54 3	9.0	1.58	2 42	18.56 1	13.8	2.43	0 59				
17.88 3	4.9	0.87	54 46	17.10 3	8.9	1.59	53 22	17.56 3	13.9	2.45	2 56				
18.64 1	4.9	0.87	2 28	17.78 3	9.0	1.60	50 39	17.81 3	13.9	2.45	2 19				
18.25 1	5.0	0.88	57 07	17.91 3	9.0	1.60	56 28	17.76 3	13.8	2.45	50 08				
18.09 3	5.0	0.88	57 37	17.13 3	9.1	1.61	4 25	16.73 3	13.9	2.47	52 06				
16.06 9	5.2	0.91	57 15	16.00 8	9.2	1.62	3 58	18.56 1	14.0	2.49	57 25				
18.56 1	5.1	0.91	51 48	18.56 1	9.3	1.64	3 36	17.06 3	14.4	2.54	2 26				
15.99 6	5.3	0.94	51 39	18.56 1	9.4	1.67	3 19	16.86 8	14.5	2.56	4 08				
18.64 1	5.6	1.00	54 42	18.56 1	9.5	1.69	4 42	18.56 1	14.5	2.56	56 23				
18.01 3	5.7	1.01	4 54	18.64 1	9.7	1.71	0 06	18.19 3	14.5	2.57	58 08				
16.04 8	5.8	1.02	55 08	18.56 1	9.7	1.71	52 15	18.33 3	14.5	2.57	54 30				

25 prec. + 52ˢ.0, + 5′ 34″

1s—60s				
Mag.		α 45m	x	y+60′ / y
		s	′	′
16.81	3	29	83.9	57.4
13.64	10	29	83.9	57.5
16.73	5	30	84.0	57.7
18.35	2	30	84.1	58.3
17.96	2	31	84.2	1.0
16.85	2	31	84.2	1.1
16.85	2	31	84.3	55.2
16.64	7	32	84.4	56.6
14.20	11	32	84.4	59.2
16.53	7	32	84.4	0.0
16.91	2	32	84.4	2.0
17.88	2	32	84.5	57.8
17.86	2	32	84.5	0.7
18.16	2	33	84.6	56.0
18.68	2	33	84.6	56.3
16.99	2	33	84.6	59.6
17.78	2	33	84.6	1.0
15.68	8	33	84.6	1.6
12.52	12	33	84.6	2.3
14.48	7	34	84.7	58.3
18.32	2	34	84.8	58.1
16.63	7	34	84.8	59.5
14.64	8	34	84.8	2.3
17.33	2	35	84.9	57.8
17.93	2	35	84.9	58.4
16.14	7	35	84.9	0.8
17.36	2	35	84.9	1.9
17.38	2	35	84.9	2.9
15.38	8	35	85.0	55.3
16.64	7	35	85.0	59.8
16.87	2	35	85.0	0.7
18.20	2	36	85.1	58.6
14.44	9	36	85.1	3.6
18.00	2	36	85.2	57.3
12.20	14	37	85.2	0.6
16.96	2	36	85.2	1.2
16.21	6	36	85.2	2.6
17.64	2	37	85.3	56.2
16.54	3	37	85.3	58.5
15.18	6	37	85.3	59.9
16.71	6	37	85.3	2.3
17.88	2	37	85.3	4.0
16.41	6	37	85.4	0.2
16.55	6	37	85.4	2.0
16.39	7	37	85.4	2.6
16.81	3	38	85.5	54.3
17.99	2	38	85.5	58.6
14.26	9	39	85.6	56.2
18.38	2	39	85.6	57.2
17.51	2	39	85.6	0.9
17.84	2	39	85.6	1.0
16.52	7	38	85.6	1.6
16.89	2	38	85.6	4.2
17.26	2	39	85.7	53.3
18.02	2	39	85.7	55.7
16.57	7	39	85.7	58.7
16.83	3	39	85.7	58.8
17.87	2	39	85.7	59.1
17.50	2	40	85.8	0.4
18.30	2	40	85.8	1.7

61s—120s				
Mag.		α 45m	x	y+60′ / y
		s	′	′
18.15	2	40	85.8	2.8
17.66	2	40	85.9	52.8
16.35	7	40	85.9	58.0
16.61	3	41	86.0	0.9
15.60	8	41	86.0	2.7
18.29	2	40	86.0	3.4
17.64	2	40	86.0	3.7
16.74	7	42	86.1	51.8
17.50	2	41	86.1	54.9
15.56	8	41	86.1	57.0
17.14	2	41	86.1	2.9
17.72	2	42	86.2	58.5
18.00	2	42	86.2	58.6
17.06	2	43	86.3	52.5
17.08	2	43	86.3	56.7
14.83	8	43	86.3	57.1
17.76	2	43	86.3	59.4
18.46	2	43	86.4	53.1
16.91	3	43	86.4	55.2
15.94	7	43	86.4	3.6
17.55	2	44	86.5	55.9
15.85	6	44	86.5	1.2
15.39	8	44	86.5	2.4
16.19	6	45	86.6	52.1
17.98	2	44	86.6	52.6
18.58	2	44	86.6	59.1
15.52	8	44	86.6	0.0
16.82	7	44	86.6	2.2
10.18	8	44	86.6	2.4
17.89	2	44	86.6	2.7
17.14	2	45	86.7	55.9
16.60	7	45	86.7	59.3
16.79	3	45	86.7	4.0
16.90	4	45	86.8	53.5
16.13	8	45	86.8	1.3
17.68	2	46	86.9	51.6
16.00	8	46	86.9	56.5
17.62	2	46	86.9	5.6
18.13	2	47	87.0	58.3
17.28	2	46	87.0	5.8
17.00	2	47	87.1	5.0
16.87	3	48	87.2	50.4
17.52	2	47	87.2	53.8
16.61	7	48	87.2	58.6
15.40	8	48	87.2	58.8
17.79	2	47	87.2	6.4
16.71	7	48	87.3	52.3
16.39	7	48	87.3	53.6
18.32	2	48	87.3	58.3
17.84	2	48	87.3	0.3
18.03	2	48	87.3	0.4
16.63	3	49	87.4	54.4
18.24	2	49	87.4	0.4
17.02	2	48	87.4	3.8
16.72	7	48	87.4	6.2
18.51	2	49	87.5	56.7
16.74	7	49	87.5	58.6
15.50	8	49	87.5	59.3
17.06	2	50	87.6	51.9
17.22	2	50	87.6	56.9

121s—180s				
Mag.		α 45m	x	y+60′ / y
		s	′	′
15.39	8	50	87.6	3.4
16.83	5	50	87.6	6.1
16.92	2	50	87.6	6.4
16.75	4	50	87.6	6.5
17.16	2	50	87.6	6.6
18.06	2	50	87.7	4.3
16.66	7	51	87.8	52.0
16.30	7	51	87.8	56.8
17.35	2	51	87.8	59.3
17.18	2	51	87.8	1.8
18.16	2	52	87.9	50.6
17.18	2	52	87.9	57.0
14.05	10	52	87.9	57.5
15.47	8	52	87.9	57.6
16.78	7	52	87.9	0.9
17.52	2	51	87.9	4.9
17.79	2	51	87.9	5.6
18.23	2	52	88.0	51.8
17.68	2	52	88.0	57.4
16.94	5	52	88.0	5.5
18.12	2	53	88.1	5.2
16.95	4	54	88.3	6.9
18.26	2	54	88.4	5.6
15.73	7	54	88.4	7.0
16.74	6	56	88.6	49.4
15.96	7	56	88.6	5.6
17.11	2	57	88.8	5.1
17.06	2	56	88.8	5.2
16.75	7	56	88.8	6.0
15.57	7	57	88.8	6.6
16.82	6	58	89.0	49.3
18.02	2	59	89.2	49.4
15.30	8	59	89.2	49.6
18.42	2	59	89.2	5.9
18.28	2	59	89.2	6.2
17.84	2	58	89.2	7.2
16.92	2	60	89.3	49.6
16.93	6	59	89.3	5.8
17.33	2	60	89.4	5.2
18.70	2	61	89.5	48.6
16.94	2	60	89.5	8.4
18.02	2	61	89.6	48.8
17.79	2	61	89.6	49.4
17.36	2	61	89.6	5.3
15.13	9	61	89.6	8.0
18.68	2	61	89.6	8.1
18.42	2	63	89.8	49.2
15.61	8	62	89.8	5.2
15.59	8	62	89.8	5.4
17.98	2	62	89.8	6.3
16.89	6	63	89.9	6.1
18.16	2	63	89.9	7.0
15.47	8	63	89.9	7.1
18.07	2	63	89.9	7.4
13.96	12	63	90.0	7.8
18.56	2	64	90.1	49.4
18.56	2	64	90.2	7.4
18.62	2	65	90.3	5.4
13.54	11	65	90.3	5.9
17.82	2	66	90.4	5.9

181s—240s				
Mag.		α 46m	x	y+60′ / y
		s	′	′
18.34	2	6	90.5	7.2
15.06	10	6	90.5	7.7
17.18	2	6	90.5	8.3
17.90	2	6	90.6	5.6
18.25	2	7	90.6	6.3
18.42	2	7	90.6	6.4
18.26	2	7	90.7	7.2
16.53	7	8	90.8	48.3
18.56	2	8	90.8	6.2
16.20	7	8	90.8	7.4
17.60	2	8	90.8	7.8
17.94	2	10	91.0	49.1
18.03	2	9	91.0	50.0
14.89	10	9	91.0	7.5
18.08	2	9	91.0	8.0
17.04	2	10	91.1	8.7
17.37	2	10	91.2	5.4
16.84	7	10	91.2	7.1
16.58	6	10	91.2	7.2
18.36	2	10	91.2	7.4
18.07	2	11	91.3	6.8
17.76	2	11	91.3	8.9
17.68	2	11	91.3	9.2
16.70	7	11	91.4	5.6
18.12	2	11	91.4	7.0
18.64	2	11	91.4	8.5
17.78	2	12	91.5	49.1
16.87	2	12	91.5	9.2
16.35	7	12	91.6	48.0
13.48	14	13	91.6	48.4
16.72	7	13	91.7	5.6
17.81	2	13	91.8	48.2
17.89	2	14	91.8	49.0
13.04	13	13	91.8	49.8
15.10	8	14	91.8	5.7
18.30	2	14	91.8	8.4
16.91	3	14	91.9	8.1
18.11	2	15	92.0	7.0
16.94	5	15	92.0	7.7
18.30	2	15	92.0	8.3
15.60	8	15	92.1	6.0
16.78	7	15	92.1	6.6
17.35	2	16	92.2	47.8
17.94	2	16	92.2	6.3
15.75	7	16	92.2	8.5
16.92	2	16	92.2	9.0
15.44	8	16	92.2	9.2
16.99	2	16	92.3	5.9
17.04	2	16	92.3	8.3
16.90	2	16	92.3	9.3
17.78	2	17	92.4	5.5
16.97	2	18	92.5	47.8
16.71	7	17	92.5	9.2
16.98	2	19	92.6	47.2
17.94	2	19	92.6	47.8
16.54	7	19	92.6	49.8
11.44	11	18	92.6	5.3
18.28	2	18	92.6	7.2
16.29	7	18	92.6	7.4
16.88	7	19	92.8	5.5

241s—300s				
Mag.		α 46m	x	y+60′ / y
		s	′	′
16.93	2	20	92.9	48.2
12.37	13	21	93.0	48.8
16.97	2	21	93.1	48.6
18.11	2	21	93.1	6.1
16.91	3	21	93.2	6.0
15.19	8	21	93.2	7.2
13.83	12	21	93.2	7.4
16.97	3	22	93.3	6.4
15.17	8	22	93.3	7.3
17.46	2	22	93.3	7.4
16.73	3	22	93.3	9.4
15.13	7	23	93.4	47.3
17.39	2	23	93.4	49.3
15.59	8	23	93.4	49.4
17.06	2	23	93.4	8.3
17.38	2	23	93.5	47.3
16.66	7	24	93.6	49.5
16.74	6	24	93.6	7.4
17.60	2	25	93.8	5.8
18.00	2	25	93.8	6.2
16.80	7	25	93.8	7.5
18.78	2	25	93.9	7.2
14.81	8	27	94.1	5.1
16.86	7	27	94.1	5.6
17.78	2	27	94.1	8.8
16.74	7	27	94.2	7.7
12.19	13	28	94.3	49.2
16.85	7	28	94.3	7.0
17.18	2	29	94.5	47.9
18.78	2	30	94.6	49.1
16.59	7	29	94.6	8.7
17.88	2	30	94.7	7.4
17.06	2	31	94.8	48.1
17.52	2	31	94.8	48.7
15.63	8	31	94.9	9.6
17.38	2	32	95.0	49.8
17.28	2	32	95.0	5.4
17.98	2	32	95.0	7.4
15.34	8	32	95.1	49.4
17.28	2	32	95.1	6.2
18.14	2	32	95.2	9.0
12.16	13	34	95.4	7.2
16.75	5	35	95.5	47.4
18.05	2	34	95.5	6.9
16.85	7	35	95.6	6.3
16.78	7	35	95.6	8.8
15.32	8	36	95.8	9.6
16.82	3	37	95.9	7.6
16.84	3	37	95.9	8.2
17.08	2	37	96.0	50.0
17.97	2	37	96.0	6.3
17.77	2	37	96.0	7.2
17.75	2	39	96.2	47.2
17.74	2	39	96.3	6.7
17.58	2	39	96.3	9.4
17.58	2	39	96.3	9.6
18.00	2	40	96.4	49.3
17.46	2	40	96.4	6.8
16.63	7	39	96.4	7.2
16.01	8	40	96.5	49.4

25 prec. + 51ˢ.9, + 5′ 32″

301*s*—360*s*					361*s*—420*s*					421*s*—480*s*					481*s*—512*s*				
Mag.		α 46^{m}	x	$y+60'$ / y	Mag.		α 47^{m}	x	$y+60'$ / y	Mag.		α 47^{m}	x	$y+60'$ / y	Mag.		α 47^{m}	x	$y+60'$ / y
		s	′	′			s	′	′			s	′	′			s	′	′
11.80	11	41	96.6	6.4	17.88	2	5	0.8	6.3	16.20	7	21	3.7	2.4	16.67	4	29	5.1	53.0
14.29	12	41	96.6	7.1	16.73	3	5	0.9	6.4	16.88	7	21	3.7	2.5	17.62	2	29	5.1	55.4
16.92	3	40	96.6	8.2	16.78	2	6	1.0	49.1	16.96	3	21	3.7	5.7	15.15	10	29	5.1	56.1
18.04	2	41	96.6	8.3	17.98	2	6	1.1	5.3	16.48	7	21	3.8	51.2	16.89	3	29	5.1	0.9
17.64	2	41	96.6	9.5	15.01	8	6	1.1	5.7	17.57	2	21	3.8	56.4	17.18	2	29	5.2	55.5
17.06	2	42	96.8	48.7	16.71	7	7	1.2	5.5	17.11	2	21	3.8	56.9	14.49	10	29	5.2	56.3
17.26	2	42	96.9	5.3	16.76	2	7	1.3	7.6	17.66	2	21	3.8	0.2	17.84	2	29	5.2	2.2
17.66	2	42	96.9	6.7	16.50	7	8	1.4	8.0	16.96	3	22	3.8	4.6	15.93	7	30	5.2	3.4
11.94	13	42	96.9	7.6	17.30	2	8	1.5	49.6	13.96	11	22	3.9	55.4	16.99	2	30	5.3	1.4
18.14	2	43	97.0	48.6	17.78	2	9	1.5	5.8	17.88	2	22	3.9	57.2	14.67	10	30	5.4	59.0
16.01	6	44	97.1	47.4	18.22	2	9	1.5	7.0	17.08	2	22	3.9	2.3	17.59	2	31	5.4	59.9
17.11	2	44	97.1	49.1	17.48	2	10	1.7	5.2	17.08	2	22	3.9	2.7	17.62	2	31	5.4	1.8
16.88	3	44	97.1	8.1	17.60	2	10	1.8	49.4	16.93	3	22	3.9	3.2	17.62	2	31	5.4	3.2
17.62	2	44	97.2	5.2	17.06	2	10	1.8	5.9	16.34	7	22	3.9	5.4	17.04	2	31	5.5	54.2
17.64	2	45	97.3	49.3	17.49	2	10	1.8	6.6	16.49	5	23	4.0	52.0	16.11	7	32	5.6	54.2
17.73	2	46	97.6	47.3	14.22	9	10	1.8	7.3	18.80	2	22	4.0	58.2	17.61	2	32	5.6	54.7
17.40	2	46	97.6	5.3	16.89	2	10	1.8	7.6	18.40	2	23	4.0	1.0	16.56	4	32	5.7	54.5
16.82	2	46	97.6	6.7	16.08	8	11	2.0	6.4	17.81	2	23	4.0	1.1	14.96	10	32	5.7	58.9
17.57	2	46	97.6	9.5	16.41	7	12	2.1	5.3	17.20	2	23	4.0	2.3	16.53	7	33	5.8	59.9
16.85	7	47	97.7	6.0	16.91	2	12	2.2	49.6	18.12	2	23	4.1	55.4	16.46	3	33	5.8	1.3
16.93	2	48	97.8	8.0	15.98	7	12	2.2	49.9	18.04	2	23	4.1	58.7	16.74	2	33	5.9	54.6
16.70	3	48	97.8	8.3	17.75	2	12	2.2	6.7	17.14	2	23	4.1	59.3	16.92	2	33	5.9	55.2
17.84	2	49	98.0	49.6	14.11	10	12	2.2	7.2	16.20	7	23	4.1	5.0	18.30	2	33	5.9	55.4
17.86	2	50	98.2	5.7	15.40	8	14	2.4	6.9	15.34	10	23	4.1	5.1	14.26	12	33	5.9	58.4
17.92	2	51	98.4	8.3	17.04	2	14	2.5	49.7	16.76	2	24	4.2	52.2	16.65	3	33	5.9	0.9
16.45	7	52	98.5	48.2	17.40	2	15	2.6	5.4	16.82	2	24	4.2	53.0	18.22	2	34	6.0	55.6
18.00	2	52	98.5	48.6	17.80	2	15	2.6	6.0	17.02	2	24	4.2	53.5	16.30	7	34	6.0	59.8
16.87	2	51	98.5	9.3	18.20	2	16	2.8	5.7	17.14	2	24	4.2	56.3	16.94	2	34	6.0	1.9
16.99	2	52	98.6	7.4	15.23	10	16	2.8	6.3	17.11	2	24	4.2	59.0	17.72	2	35	6.1	57.4
17.06	2	54	98.8	47.6	16.57	7	16	2.9	6.0	18.06	2	24	4.2	4.4	16.67	3	35	6.1	0.3
18.08	2	54	98.9	7.1	18.02	2	17	3.0	59.2	16.58	7	24	4.3	56.9	15.91	8	35	6.2	55.9
17.08	2	54	99.0	5.4	18.03	2	18	3.1	53.9	16.72	5	24	4.3	58.0	16.64	3	36	6.4	59.1
18.22	2	54	99.0	7.1	17.64	2	18	3.1	57.2	17.74	2	25	4.4	52.5					
17.90	2	54	99.0	8.4	17.92	2	18	3.1	0.3	17.60	2	25	4.4	52.8					
17.74	2	55	99.1	7.4	14.94	9	18	3.1	2.6	16.96	2	25	4.4	55.2					
17.50	2	55	99.1	8.5	16.90	7	18	3.1	2.9	15.06	8	25	4.4	58.4					
15.38	8	55	99.2	49.7	17.62	2	18	3.1	3.5	17.87	2	25	4.4	1.2					
17.74	2	55	99.2	6.3	15.48	8	18	3.2	51.4	17.52	2	25	4.5	4.3					
17.56	2	55	99.2	8.2	18.03	2	18	3.2	54.5	18.00	2	26	4.6	53.1					
15.17	6	56	99.3	48.3	17.04	2	18	3.2	57.0	17.28	2	26	4.6	53.7					
16.94	2	57	99.4	49.8	13.41	14	18	3.2	57.9	18.16	2	26	4.6	54.1					
16.44	7	56	99.4	9.0	17.26	2	18	3.2	4.0	15.18	8	26	4.6	54.8					
17.04	2	58	99.6	49.1	16.14	7	18	3.2	4.2	17.02	2	26	4.6	58.7					
17.80	2	58	99.6	7.6	17.04	3	18	3.2	4.8	16.88	3	26	4.6	0.3					
17.83	2	58	99.6	8.7	16.80	5	18	3.2	5.8	14.87	9	26	4.6	2.1					
17.40	2	58	99.7	6.4	17.28	2	19	3.3	55.0	14.99	10	26	4.6	2.4					
17.26	2	59	99.8	6.3	17.05	3	19	3.3	0.9	15.48	8	27	4.7	56.6					
18.54	2	59	99.9	8.6	17.57	2	19	3.4	51.3	16.29	7	27	4.7	59.6					
17.80	2	61	0.2	49.2	17.66	2	19	3.4	52.3	17.00	3	27	4.7	0.8					
16.79	3	62	0.3	5.4	18.26	2	19	3.4	53.0	17.95	2	27	4.8	55.2					
17.64	2	62	0.4	49.8	18.08	2	19	3.4	57.3	17.25	2	27	4.8	56.3					
14.89	10	62	0.4	5.4	16.35	7	19	3.4	58.5	15.03	10	27	4.8	59.4					
17.76	2	63	0.5	49.0	18.23	2	20	3.5	52.2	15.04	10	27	4.8	1.3					
14.22	10	63	0.6	6.0	17.68	2	20	3.5	58.9	17.16	2	27	4.8	3.8					
15.55	8	63	0.6	6.3	14.50	10	20	3.5	59.0	16.93	3	28	4.9	57.6					
16.83	3	63	0.6	6.7	16.65	7	20	3.5	59.9	17.16	2	28	4.9	0.7					
17.30	2	63	0.6	7.2	17.90	2	20	3.5	4.7	16.98	3	28	4.9	0.9					
16.96	2	64	0.7	49.7	15.20	8	20	3.6	51.3	16.76	3	28	5.0	53.5					
18.26	2	65	0.8	49.2	17.36	2	21	3.6	54.2	16.89	3	28	5.0	58.3					
18.02	2	65	0.8	5.4	17.92	2	20	3.6	4.6	15.97	7	28	5.0	3.4					

Area 41. Center for 1900: 21h 50m + 45° 0′ (15′ × 15′)

1—60				
Mag.		α 48m	x	y+60′ / y
		s	′	′ ″
17.56	3	52.3	88.00	51 40
16.01	8	52.3	88.00	53 03
15.86	9	52.1	88.00	1 08
17.23	3	52.3	88.01	57 54
17.65	3	52.6	88.07	59 00
18.18	3	52.8	88.10	57 14
18.24	3	52.7	88.11	2 25
12.62	17	52.9	88.12	55 03
14.98	11	52.9	88.12	58 39
16.28	8	52.9	88.12	59 48
16.37	8	53.4	88.20	53 07
16.42	8	53.4	88.20	53 37
18.12	3	53.4	88.21	58 41
12.12	17	53.3	88.21	4 16
16.52	8	53.4	88.23	2 23
18.21	3	53.4	88.24	3 12
17.77	3	53.5	88.24	56 54
15.46	10	53.5	88.25	3 33
16.54	8	53.6	88.26	1 48
17.52	3	53.8	88.27	52 27
18.21	3	53.8	88.30	4 33
17.65	3	54.3	88.36	56 07
12.87	17	54.1	88.37	2 34
14.66	13	54.4	88.38	57 37
16.51	8	54.5	88.41	56 45
16.70	8	54.5	88.44	2 05
17.95	3	54.8	88.46	58 07
17.86	3	54.8	88.49	3 27
18.08	3	55.2	88.51	54 16
17.59	3	55.1	88.52	59 45
17.96	2	55.3	88.53	52 03
15.89	9	55.5	88.57	54 54
16.63	8	55.3	88.57	3 10
17.55	3	55.5	88.58	59 55
17.76	3	55.5	88.58	58 54
17.58	3	55.6	88.59	51 30
15.05	12	55.4	88.59	1 15
14.20	13	55.5	88.61	1 07
18.08	2	55.7	88.61	59 09
18.14	3	56.1	88.66	53 22
17.87	3	56.1	88.66	52 45
17.73	3	56.1	88.66	52 18
15.35	10	55.8	88.67	4 07
17.66	3	56.1	88.68	56 30
16.24	8	56.2	88.69	50 44
17.59	3	56.3	88.70	50 11
16.72	8	56.3	88.70	54 53
17.49	3	56.2	88.71	56 49
17.80	3	56.2	88.74	0 27
18.04	3	56.3	88.75	0 38
16.70	6	56.7	88.78	50 30
17.99	3	56.8	88.80	53 13
15.44	8	56.8	88.80	54 15
18.30	2	56.8	88.81	56 19
17.80	3	56.8	88.81	56 33
18.18	3	56.7	88.81	4 34
16.55	8	56.9	88.82	53 16
17.98	3	56.9	88.83	58 39
17.89	3	57.1	88.87	59 53
17.65	3	57.0	88.87	4 33

61—120				
Mag.		α 48m	x	y+60′ / y
		s	′	′ ″
18.36	2	57.2	88.89	59 57
17.61	3	57.3	88.91	55 38
17.52	3	57.6	88.94	50 05
16.13	8	57.6	88.99	1 59
18.33	2	58.0	89.04	55 40
14.93	11	58.0	89.05	1 34
17.65	3	58.2	89.07	57 21
15.81	8	58.3	89.07	52 15
17.85	3	58.2	89.08	2 22
17.75w	2	58	89.1	51 24
16.60	8	58.4	89.11	3 02
16.73	5	58.4	89.11	4 20
16.06	8	58.7	89.13	51 51
17.81	3	58.9	89.16	50 08
17.46	3	58.7	89.16	3 10
18.37	2	58.8	89.17	55 08
18.15	3	58.9	89.20	4 44
16.70	8	59.0	89.21	58 37
16.60	8	59.0	89.22	1 52
16.00	8	59.1	89.25	1 23
16.16	8	59.4	89.25	52 14
15.28	10	59.3	89.27	55 04
16.71	8	59.3	89.27	57 17
17.84	2	59.3	89.27	57 21
18.25	3	59.2	89.27	1 15
17.37	3	59.5	89.30	56 25
16.18	8	59.7	89.31	51 51
16.41	8	59.7	89.34	59 09
17.38	3	60.0	89.36	50 40
18.08	2	59.9	89.38	3 11
17.46	3	60.0	89.40	3 44
18.26	3	60.2	89.41	55 33
17.39	3	60.2	89.41	59 16
17.72	2	60.4	89.44	50 16
17.54	3	60.6	89.46	51 46
18.27	3	60.5	89.46	57 41
17.89	3	60.4	89.47	2 03
18.33	3	60.6	89.48	59 29
15.21	10	60.7	89.49	50 52
17.62	3	60.6	89.51	2 46
16.53	8	60.7	89.51	59 03
15.03	12	60.8	89.52	59 52
18.04	3	60.8	89.54	4 04
17.92	3	60.9	89.56	2 20
16.70	8	61.1	89.56	54 17
18.16	2	61.1	89.56	53 47
17.41	3	61.3	89.61	56 02
18.37	2	61.4	89.63	55 29
18.10	3	61.4	89.64	59 40
17.89	3	61.5	89.64	50 32
17.16	3	61.6	89.65	51 01
17.94	3	61.7	89.67	52 25
17.50	3	61.7	89.68	57 44
16.77	8	61.7	89.69	56 01
18.11	3	62.1	89.74	53 55
16.62	8	62.3	89.76	52 02
16.30	7	62.3	89.80	4 10
18.00	3	62.3	89.81	3 51
18.16	2	62.5	89.81	51 36
17.78	2	62.4	89.81	56 14

121—180				
Mag.		α 49m	x	y+60′ / y
		s	′	′ ″
17.72	3	2.7	89.84	50 15
17.37	3	2.8	89.86	53 59
16.50	8	2.8	89.89	56 58
17.97	3	2.7	89.89	2 03
16.73	8	3.0	89.91	57 13
18.03	3	3.1	89.94	56 56
16.77	8	3.1	89.94	58 14
16.64	8	3.1	89.94	59 33
17.33	3	3.1	89.95	2 14
18.20	3	3.2	89.96	3 32
16.55	8	3.6	90.01	57 46
16.59	8	3.7	90.01	51 55
16.60	8	3.7	90.02	52 18
18.16	2	3.6	90.03	1 50
17.99	3	3.7	90.04	59 09
17.39	3	3.9	90.05	53 56
17.46	3	3.8	90.05	55 25
17.99	3	4.0	90.08	59 30
14.37	14	4.1	90.09	54 34
17.85	3	4.1	90.10	55 41
17.36	3	4.0	90.11	2 04
17.58d	1	4.1	90.12	0 49
17.40	3	4.4	90.15	53 56
17.86	2	4.5	90.17	50 14
18.46	1	4.5	90.18	57 17
16.36	8	4.7	90.20	54 45
17.94	3	4.9	90.23	53 36
15.47	10	4.9	90.26	4 45
17.80	3	5.1	90.27	51 23
17.69	3	5.4	90.31	54 09
15.44	9	5.4	90.31	54 29
17.30	3	5.2	90.32	3 40
17.07	3	5.7	90.36	51 06
18.46	1	5.6	90.37	57 00
14.87	11	5.6	90.37	59 02
16.51	8	5.8	90.38	51 38
18.18	3	5.9	90.40	54 16
17.95	2	5.9	90.40	51 56
17.60	3	6.0	90.44	57 18
17.24	3	6.2	90.46	50 02
18.08	3	6.3	90.49	53 49
18.18	3	6.3	90.50	59 31
14.91	12	6.3	90.52	4 12
17.36	3	6.5	90.52	50 07
17.87	3	6.5	90.54	57 29
18.26	2	6.7	90.56	58 57
18.12	2	6.6	90.56	2 56
16.65	8	6.7	90.58	4 27
18.07	3	6.9	90.58	50 31
14.99	12	7.0	90.60	52 00
16.45	8	6.9	90.61	0 33
17.81	3	7.1	90.63	51 25
16.43	8	7.2	90.64	52 32
17.70	3	7.1	90.64	58 46
17.52	3	7.3	90.66	59 55
17.89	3	7.5	90.70	50 50
16.74	8	7.4	90.71	4 10
16.74	8	7.6	90.72	58 50
18.07	3	7.7	90.75	58 23
18.46	1	7.8	90.75	54 46

181—240				
Mag.		α 49m	x	y+60′ / y
		s	′	′ ″
17.24	3	7.8	90.77	57 06
16.46	8	8.0	90.78	51 53
16.78	8	7.9	90.79	57 26
17.96	3	8.1	90.80	53 24
16.86	8	8.4	90.87	59 08
18.18	2	8.3	90.87	4 03
16.52	8	8.6	90.88	53 55
15.78	9	8.5	90.88	59 27
17.89	3	8.5	90.88	56 50
16.47	8	8.7	90.90	50 44
13.88	15	8.7	90.91	54 09
16.90	8	8.6	90.91	1 35
12.83	17	8.7	90.93	0 55
16.92	6	8.8	90.95	0 22
16.17	8	8.8	90.95	55 02
18.12	2	8.9	90.97	3 16
16.70	8	8.9	90.97	0 29
17.91	3	9.3	91.02	52 10
17.92	3	9.4	91.03	54 09
16.08	9	9.4	91.07	1 43
17.79	3	9.4	91.07	1 38
18.11	3	9.6	91.08	57 13
17.57	3	9.7	91.11	0 33
17.95	3	9.8	91.14	4 15
18.53	2	10.0	91.17	1 04
14.21	10	10.2	91.17	50 19
15.52	10	10.2	91.17	54 00
18.42	2	10.2	91.19	55 08
15.27	10	10.4	91.20	52 56
16.81	8	10.3	91.21	55 54
17.91	3	10.5	91.23	53 57
18.54	1	10.5	91.25	1 18
16.11	9	10.6	91.27	4 47
17.96	3	10.8	91.29	53 23
17.35	3	10.9	91.31	59 15
17.87	3	11.0	91.34	57 42
16.99	3	11.2	91.35	52 06
17.09	6	11.4	91.40	57 43
17.05	3	11.6	91.41	50 22
17.64	3	11.4	91.42	2 43
17.41	3	11.6	91.45	1 56
18.33	3	11.7	91.45	55 16
14.64	13	11.9	91.47	53 15
17.46	3	11.7	91.47	0 58
18.23	3	11.8	91.48	3 11
17.70	2	11.9	91.48	58 30
17.40	3	11.9	91.49	57 24
18.60	2	12.1	91.53	59 08
17.42	3	12.2	91.55	59 56
16.29	8	12.4	91.56	53 29
18.18	2	12.3	91.57	4 20
17.08	1	12.4	91.57	50 17
17.56	3	12.5	91.58	50 01
15.89	8	12.4	91.59	55 38
15.98	8	12.6	91.60	54 18
18.37	2	12.6	91.60	52 13
18.29	3	12.5	91.60	3 13
16.78	8	12.6	91.62	1 29
15.97	8	12.9	91.66	57 54
17.94	2	13.0	91.67	50 17

241—300				
Mag.		α 49m	x	y+60′ / y
		s	′	′ ″
17.35	3	13.3	91.71	50 40
18.04	2	13.2	91.71	55 19
18.32	2	13.2	91.71	55 06
18.23	2	13.1	91.72	2 44
17.63	3	13.6	91.77	52 53
17.82	3	13.7	91.78	54 54
16.79	8	13.6	91.80	2 40
18.14	3	13.7	91.81	57 59
17.19	3	13.8	91.81	51 49
16.69	8	13.9	91.85	3 01
15.92	8	13.9	91.85	2 03
18.32	2	13.9	91.85	0 31
17.97	3	14.1	91.88	55 08
16.68w	5	14	91.9	1 36
17.79	3	14.3	91.90	51 55
13.90	15	14.3	91.93	2 01
16.11	8	14.3	91.93	3 53
17.30	3	14.3	91.93	4 58
18.20	1	14.3	91.93	3 28
15.83	8	14.3	91.93	0 16
14.41	14	14.7	91.97	50 18
17.57	3	14.8	92.00	59 37
18.48	2	14.9	92.03	0 59
17.85	3	14.9	92.04	0 13
17.91	3	15.0	92.05	3 18
16.32	8	15.0	92.05	3 54
16.79	8	15.1	92.05	55 47
16.72	5	15.2	92.06	53 02
16.03	8	15.2	92.07	54 14
16.22	8	15.3	92.08	54 23
14.76	12	15.3	92.08	58 46
18.10	3	15.4	92.11	0 13
14.17	13	15.6	92.14	50 21
16.79	8	15.6	92.14	53 18
16.44	9	15.7	92.15	54 55
17.82	3	15.7	92.15	50 54
16.86	8	15.8	92.18	59 21
17.82	3	15.9	92.20	4 29
16.51	8	15.9	92.21	2 18
17.00	8	16.0	92.22	59 48
13.88	14	16.2	92.25	57 13
17.50	3	16.4	92.27	53 41
17.36	3	16.5	92.28	50 04
18.54	1	16.3	92.28	3 41
16.89	6	16.6	92.30	50 59
17.82	3	16.6	92.33	0 40
16.08	8	16.8	92.34	53 12
15.46	9	16.8	92.35	52 49
17.35	3	16.8	92.35	58 34
17.75	3	17.0	92.38	57 05
15.73	10	17.0	92.39	57 50
18.46	2	17.0	92.40	2 32
17.08	4	17.0	92.40	4 22
14.98	11	17.2	92.43	55 41
16.79	8	17.1	92.43	1 05
17.09	3	17.5	92.47	50 55
15.53	11	17.4	92.47	59 06
17.43	3	17.5	92.48	55 24
18.07	3	17.4	92.49	3 31
16.81	8	17.5	92.50	2 01

25 prec. + 58ˢ.7, + 7′ 2″

301—360				361—420				421—480				481—540				541—600			
Mag.	α 49^m	x	y+60′ y	Mag.	α 49^m	x	y+60′ y	Mag.	α 49^m	x	y+60′ y	Mag.	α 49^m	x	y+60′ y	Mag.	α 49^m	x	y+60′ y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.29 3	17.6	92.50	55 29	16.77 8	22.0	93.28	55 46	16.98 8	27.4	94.23	56 51	18.01 3	31.2	94.90	53 00	16.01 9	35.6	95.69	4 50
16.76 8	17.9	92.54	53 39	15.44 11	22.0	93.28	59 11	16.58 8	27.5	94.23	50 24	15.34 10	31.2	94.91	0 10	10.06w 14	35.7	95.70	58 54
15.75 9	18.1	92.58	55 21	17.04 3	22.1	93.29	52 02	16.33 8	27.5	94.23	54 51	16.86 8	31.3	94.93	1 20	16.39 8	35.8	95.72	50 24
17.24 3	18.3	92.61	59 26	16.46 9	22.1	93.30	57 13	18.75 2	27.6	94.28	1 52	16.84 6	31.3	94.93	4 38	18.46 1	36.0	95.76	4 49
16.77 8	18.3	92.64	4 33	15.35 11	22.1	93.30	0 12	17.35 3	27.8	94.29	53 53	16.98 6	31.3	94.94	3 42	17.60 3	36.1	95.76	57 56
18.00 3	18.4	92.65	0 54	16.59 8	22.2	93.32	56 00	17.54 3	27.9	94.30	50 24	18.13 2	31.6	94.98	4 21	15.50 10	36.2	95.78	52 41
16.96 8	18.5	92.67	3 11	16.97 8	22.2	93.33	1 32	15.39 10	27.8	94.30	56 00	18.19 2	31.6	94.98	58 19	15.58 8	36.2	95.79	54 59
17.17 4	18.5	92.67	3 46	17.59 3	22.2	93.33	4 46	17.00 8	27.8	94.30	58 36	18.22 3	31.8	95.01	0 33	17.57 3	36.2	95.80	4 58
17.72 3	18.5	92.67	3 39	16.68 8	22.3	93.34	58 38	18.59 2	27.9	94.34	1 35	17.99 3	31.8	95.02	2 20	18.70 2	36.4	95.83	56 36
17.33 3	18.6	92.67	54 34	16.00 9	22.5	93.37	55 12	18.24 2	28.1	94.34	53 58	17.75 3	32.0	95.04	50 48	16.95 5	36.4	95.83	4 42
14.19 14	18.6	92.67	52 50	17.18 4	22.7	93.42	4 29	17.59 3	28.1	94.35	56 30	17.47 3	32.2	95.06	52 08	16.90 9	36.4	95.84	0 20
17.69 2	18.7	92.68	59 22	18.00 3	23.0	93.46	1 05	15.64: 5	28.1	94.35	59 54	18.30 3	32.1	95.07	2 01	18.51 2	36.6	95.85	59 21
17.43 3	18.7	92.68	57 42	18.29 1	23.2	93.49	51 40	18.47 2	28.1	94.35	55 24	18.24 2	32.2	95.08	59 08	17.83 3	36.7	95.86	54 26
18.54 1	18.7	92.69	55 14	15.55 9	23.5	93.54	59 27	16.83 8	28.1	94.37	2 36	17.66 3	32.2	95.09	57 05	17.87 3	36.6	95.86	4 45
17.51 3	18.8	92.73	4 00	16.89 8	23.6	93.57	2 39	18.42 3	28.3	94.38	58 56	17.95 3	32.3	95.09	50 15	18.32 2	36.7	95.87	52 54
16.34 9	19.0	92.76	3 06	18.04 3	23.7	93.58	57 08	16.90 8	28.3	94.38	55 53	18.63 1	32.3	95.11	2 39	16.89 8	36.7	95.88	2 52
16.87 6	19.3	92.78	50 30	18.15 3	23.8	93.60	58 14	15.18 11	28.6	94.41	59 34	16.80 8	32.5	95.13	56 37	16.71 8	36.9	95.90	53 07
18.13 2	19.1	92.79	2 35	17.85 3	23.8	93.60	4 39	17.42 3	28.4	94.41	2 49	16.22 9	32.7	95.16	52 22	17.45 3	36.9	95.91	56 10
16.52 8	19.1	92.79	0 54	16.67 8	23.9	93.60	52 43	18.15 3	28.5	94.44	2 48	17.58 3	32.7	95.17	58 43	18.36 2	36.9	95.92	3 15
16.87 6	19.2	92.80	3 15	15.08 11	23.9	93.61	58 55	17.49 3	28.6	94.44	54 32	16.51 8	32.9	95.21	57 43	16.95 8	37.0	95.94	2 12
17.99 3	19.4	92.83	1 56	18.14 2	24.1	93.63	52 53	17.87 3	28.8	94.46	54 10	17.92 3	33.1	95.24	54 01	9.35w 8	37.1	95.95	51 11
16.85 7	19.5	92.84	57 48	17.99 3	24.2	93.65	50 40	18.02 3	28.8	94.46	54 34	16.84 8	33.0	95.24	1 01	15.43 10	37.2	95.97	54 33
18.63 1	19.6	92.87	0 58	17.03 6	24.0	93.65	2 53	18.44 2	28.7	94.47	58 09	18.72 1	33.2	95.26	57 59	17.95 3	37.3	95.98	0 36
16.52 8	19.6	92.87	1 23	17.56 3	24.3	93.66	50 53	18.36 2	28.7	94.47	1 55	17.03 8	33.2	95.27	58 38	17.08 8	37.3	95.99	2 07
17.66 3	19.8	92.87	52 28	17.35 3	24.4	93.68	50 36	17.65 3	28.8	94.48	4 50	15.97 9	33.4	95.28	51 42	18.56 2	37.3	95.99	3 09
17.07 7	19.8	92.88	59 09	17.23 4	24.5	93.71	56 05	16.96 8	28.8	94.48	59 29	17.39 3	33.4	95.30	3 50	18.54 1	37.3	95.99	54 50
17.32 3	19.8	92.89	59 18	17.37 3	24.6	93.73	53 44	16.33 8	29.0	94.50	50 41	16.07 8	33.6	95.31	50 14	17.65 3	37.6	96.04	59 47
16.96 8	19.9	92.90	56 50	18.24 2	24.6	93.75	0 33	18.22 2	28.9	94.50	4 31	18.06 3	33.6	95.33	59 56	17.82 2	37.8	96.06	56 35
17.55 3	20.0	92.90	53 08	18.54 1	24.9	93.79	55 09	16.96 6	29.1	94.53	53 02	18.23 2	33.7	95.35	2 11	17.69 3	37.8	96.06	51 51
16.85 8	19.9	92.91	2 54	17.42 3	25.0	93.80	50 25	17.69 3	29.1	94.54	59 09	17.72 3	33.7	95.35	4 58	18.54 2	37.8	96.07	59 49
14.72 14	19.9	92.91	0 39	18.16 2	25.0	93.81	59 04	17.25 3	29.2	94.55	51 43	16.60 8	33.7	95.35	3 00	18.15 2	38.0	96.10	56 37
18.05 3	20.1	92.92	54 08	17.92 3	25.2	93.84	53 11	17.56 3	29.4	94.58	58 06	16.58 5	33.9	95.36	51 21	17.52 3	38.0	96.10	59 55
18.48 2	20.1	92.93	59 59	18.49 2	25.4	93.86	54 54	17.89 3	29.3	94.58	4 25	15.59 10	33.9	95.36	53 28	17.77 2	37.9	96.10	2 59
18.40 2	20.0	92.93	1 49	18.03 1	25.3	93.86	58 35	18.11 1	29.4	94.59	52 10	18.63 2	33.8	95.37	1 06	18.29 1	38.0	96.10	50 19
16.90 8	20.0	92.93	3 12	17.32 4	25.3	93.87	56 26	13.71 16	29.6	94.61	59 42	16.13 7	33.9	95.38	4 33	17.68 3	38.0	96.11	4 38
16.40 8	20.2	92.94	52 25	17.88 3	25.4	93.87	54 12	17.93 2	29.7	94.63	55 59	18.46 1	34.1	95.40	54 29	18.54 2	38.1	96.12	59 08
18.11 3	20.2	92.95	51 35	15.11 10	25.4	93.87	50 15	17.77 3	29.6	94.64	0 01	18.41 3	34.1	95.41	59 40	16.75 8	38.2	96.13	56 01
17.66 3	20.2	92.95	59 37	18.06 3	25.5	93.89	53 05	17.07 8	29.8	94.67	2 07	15.74 9	34.0	95.41	1 39	15.16 11	38.2	96.13	53 44
18.04 3	20.2	92.95	56 23	15.42 12	25.5	93.91	3 27	17.78 3	29.8	94.67	0 49	17.88 3	34.2	95.42	52 01	17.92 3	38.2	96.14	59 00
15.38 11	20.1	92.95	3 52	17.02 8	25.7	93.95	2 09	18.63 1	30.0	94.68	58 44	16.68 8	34.4	95.46	54 17	17.19 3	38.4	96.16	54 44
18.32 3	20.2	92.96	2 11	18.24 2	25.8	93.95	57 55	18.66 2	30.0	94.69	59 18	18.47 2	34.3	95.47	1 46	18.37 1	38.4	96.16	53 18
15.78 9	20.3	92.96	50 43	16.26 9	26.0	93.97	51 27	15.67 10	30.2	94.72	56 07	17.93 3	34.3	95.47	4 38	17.66 3	38.3	96.16	0 09
16.52 8	20.3	92.97	50 22	17.00 8	25.9	93.98	1 15	18.63 1	30.2	94.74	1 55	18.49 3	34.5	95.48	58 14	17.63 3	38.4	96.19	2 54
15.25 11	20.3	92.99	1 39	17.82 3	26.0	93.99	58 41	16.62 4	30.2	94.74	3 01	17.99 3	34.6	95.51	3 23	17.68 1	38.5	96.19	51 13
17.81 3	20.4	93.00	57 54	16.91 3	26.2	94.01	52 01	18.02 3	30.5	94.78	3 36	18.79 2	34.6	95.52	1 01	17.78 3	38.6	96.20	58 59
17.18 3	20.6	93.01	51 58	18.09 3	26.2	94.01	58 59	17.66 3	30.5	94.79	4 39	17.99 3	34.6	95.52	0 02	18.63 1	38.7	96.23	57 10
17.50 3	20.5	93.03	3 42	18.63 1	26.2	94.02	56 23	18.20 1	30.6	94.79	52 49	17.35 3	34.8	95.55	1 26	16.50 8	38.7	96.24	3 19
16.58 9	20.5	93.03	3 07	18.28 3	26.1	94.02	3 38	17.57 3	30.6	94.81	2 39	18.10 3	34.9	95.55	50 17	16.03 8	38.9	96.27	51 29
17.58 1	20.6	93.04	55 22	17.60 3	26.2	94.03	4 58	18.75 2	30.7	94.81	57 18	18.27 3	34.9	95.56	2 19	18.63 1	38.9	96.27	56 51
18.18 2	20.6	93.05	56 01	17.22 6	26.3	94.04	56 13	17.82 3	30.8	94.83	54 07	18.54 1	34.9	95.57	3 12	17.41 3	39.1	96.30	50 18
15.72 9	20.7	93.06	2 16	17.58 3	26.4	94.05	57 43	18.61 2	30.8	94.84	56 22	18.38 2	35.0	95.59	56 00	13.62 17	39.2	96.31	53 31
16.90 8	20.8	93.08	58 35	18.72 1	26.6	94.10	2 09	14.63 14	30.8	94.85	1 25	17.99 3	35.1	95.60	3 32	17.82 3	39.2	96.31	54 13
18.46 1	21.0	93.09	55 00	16.95 8	26.7	94.11	0 29	17.93 3	30.8	94.85	4 44	15.93 9	35.3	95.63	0 34	16.47 8	39.3	96.33	53 02
18.28 3	21.0	93.09	53 19	14.98 11	27.1	94.16	51 29	18.23 3	31.0	94.86	52 50	18.13 3	35.4	95.64	54 15	16.77 1	39.3	96.33	51 19
15.22 11	21.3	93.15	58 28	18.72 1	27.0	94.17	58 49	16.40 9	31.0	94.86	51 22	17.79 3	35.4	95.64	52 37	17.98 3	39.3	96.33	52 24
16.47 8	21.2	93.15	4 19	18.28 3	27.1	94.18	3 28	16.86 5	31.0	94.87	51 44	17.08 4	35.5	95.67	51 49	17.25 8	39.3	96.33	59 15
18.29 2	21.4	93.16	57 47	18.27 3	27.1	94.18	3 59	16.47 8	31.0	94.87	53 44	18.80 1	35.5	95.67	59 58	17.56 3	39.4	96.35	52 33
17.97 3	21.4	93.17	55 19	17.56 3	27.2	94.20	1 59	16.65 8	31.0	94.87	57 17	18.36 2	35.6	95.68	55 10	16.92 8	39.6	96.38	57 43
18.07 3	21.8	93.24	54 13	17.18 4	27.2	94.20	5 00	17.68 3	31.1	94.89	55 13	18.00 2	35.6	95.68	57 49	18.54 1	39.7	96.40	55 22
18.36 2	21.9	93.27	3 59	17.44 3	27.4	94.22	53 20	17.79 3	31.1	94.89	52 56	18.36 3	35.6	95.69	56 01	17.10 4	39.7	96.40	54 43

25 prec. + $58^s.7$, + 7′ 2″

Area 41

601—660					661—720					721—780					781—840					841—900				
Mag.		α 49^m	x	$y+60'$ / y	Mag.		α 49^m	x	$y+60'$ / y	Mag.		α 49^m	x	$y+60'$ / y	Mag.		α 49^m	x	$y+60'$ / y	Mag.		α 50^m	x	$y+60'$ / y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
17.47	3	39.8	96.43	56 09	18.12	2	45.0	97.35	54 04	18.06	3	49.5	98.14	55 14	18.48	2	55.4	99.18	1 09	16.64	4	0.2	0.03	3 56
17.86	2	39.9	96.45	4 20	17.70	3	45.1	97.36	52 34	16.68	8	49.5	98.14	53 24	15.11	12	55.4	99.18	58 33	17.69	3	0.2	0.03	56 40
15.23	11	40.2	96.50	1 31	18.40	2	45.1	97.36	2 44	15.28	11	49.6	98.16	3 03	14.81	12	55.5	99.20	53 13	18.32	2	0.4	0.07	53 13
16.86	8	40.3	96.50	54 32	18.33	3	45.1	97.37	52 45	17.92	3	49.7	98.18	4 25	18.63	1	55.6	99.22	58 50	18.63	1	0.6	0.11	1 16
18.63	1	40.3	96.51	4 11	17.83	3	45.2	97.38	0 46	16.74	8	49.7	98.19	53 45	17.91	3	55.6	99.23	58 36	16.60	6	0.7	0.12	50 03
13.03	17	40.6	96.56	2 04	17.00	8	45.2	97.38	59 22	18.12	2	49.8	98.20	0 04	18.34	2	55.6	99.23	55 05	17.29	3	0.7	0.12	51 59
17.79	3	40.6	96.56	51 58	18.72	1	45.2	97.39	1 16	18.68	2	49.9	98.22	0 24	15.17	11	55.7	99.23	51 51	14.85	13	0.8	0.15	56 24
17.79	3	40.6	96.56	56 27	17.76	3	45.4	97.41	57 33	16.64	7	49.9	98.22	56 45	18.63	1	55.7	99.25	1 56	17.61	3	0.8	0.15	3 09
17.33	3	40.6	96.57	51 52	17.13	3	45.5	97.43	52 18	17.13	8	50.0	98.23	58 59	16.53	9	55.8	99.27	0 34	18.54	1	0.9	0.16	58 13
17.18	8	40.7	96.58	0 06	18.16	2	45.5	97.44	59 47	16.83	6	50.0	98.23	50 50	15.81	9	55.9	99.28	58 16	13.05	17	1.2	0.21	4 04
14.55	13	40.7	96.59	55 30	18.63	1	45.5	97.44	3 40	18.75	2	50.1	98.25	58 40	18.40	2	56.3	99.35	57 22	17.68	3	1.5	0.27	4 59
18.37	1	40.8	96.61	0 26	17.02	6	45.5	97.45	3 49	18.63	1	50.2	98.26	59 59	18.37	1	56.3	99.35	50 53	16.84	8	1.5	0.27	3 06
15.06	11	40.8	96.61	4 06	18.36	3	45.7	97.48	3 00	18.42	2	50.2	98.27	54 45	16.41	8	56.4	99.36	0 20	16.48	8	1.5	0.27	56 11
16.78	8	41.0	96.64	53 50	15.17	11	45.9	97.50	55 06	17.65	3	50.2	98.27	0 17	16.57	8	56.4	99.37	2 46	17.84	3	1.6	0.28	56 00
18.45	2	41.3	96.69	53 20	18.24	3	45.9	97.50	59 13	18.29	1	50.4	98.30	50 27	16.82	8	56.4	99.37	3 52	17.58	3	1.6	0.28	57 08
18.20	3	41.4	96.71	55 24	18.44	2	46.0	97.54	2 41	16.26	9	50.4	98.30	54 11	12.89	18	56.4	99.37	52 26	16.95	8	1.6	0.29	0 43
18.46	1	41.6	96.74	54 39	17.53	3	46.2	97.55	52 38	18.16	2	50.5	98.31	59 20	15.03	12	56.5	99.38	56 36	14.90	10	1.7	0.30	0 49
13.98	13	41.8	96.76	51 22	12.94	16	46.1	97.55	59 02	16.51	7	50.6	98.34	59 28	17.67	3	56.5	99.39	50 13	18.56	2	1.8	0.31	1 25
17.68	3	41.8	96.76	50 24	18.32	2	46.2	97.57	1 26	17.21	3	50.6	98.34	57 54	18.12	2	56.6	99.40	54 20	17.71	3	2.0	0.35	57 34
17.62	3	41.7	96.77	57 10	17.72	3	46.3	97.58	1 29	16.87	8	50.6	98.34	3 48	16.48	8	56.7	99.41	4 04	16.67	8	2.0	0.35	54 30
16.85	8	41.8	96.78	4 29	17.81	3	46.3	97.58	57 30	18.40	2	50.6	98.35	0 25	12.33	16	56.7	99.42	51 25	16.94	5	2.1	0.37	54 59
18.54	1	41.8	96.79	55 30	17.53	3	46.4	97.60	55 31	18.29	1	50.6	98.35	2 26	18.36	2	56.7	99.42	54 58	18.46	1	2.1	0.37	4 16
18.00	3	42.0	96.81	1 37	16.73	6	46.5	97.61	50 09	18.19	3	50.7	98.35	56 37	17.89	3	56.8	99.43	52 56	16.73	8	2.2	0.38	55 19
17.64	3	42.1	96.84	0 11	15.34	10	46.6	97.62	54 13	17.59	3	50.7	98.35	53 30	15.49	9	56.8	99.43	0 48	17.10	3	2.2	0.38	58 45
18.66	2	42.1	96.84	0 45	18.20	2	46.6	97.62	53 38	18.07	3	50.8	98.37	59 00	10.71w	14	56.8	99.44	4 46	18.11	1	2.2	0.39	58 36
18.46	1	42.2	96.84	52 17	16.79	8	46.5	97.62	55 01	15.51	8	50.9	98.38	55 14	18.63	1	57.0	99.46	59 54	17.23	3	2.3	0.40	52 31
18.16	2	42.3	96.86	2 35	18.63	1	46.6	97.63	2 57	16.72	8	51.0	98.40	52 07	14.93	12	57.0	99.46	56 52	17.91	3	2.3	0.41	3 44
18.82	2	42.4	96.89	59 29	16.00	9	46.6	97.63	50 24	17.38	3	51.3	98.47	52 58	16.90	6	57.1	99.48	53 07	16.07	9	2.4	0.42	53 51
16.54	7	42.4	96.89	59 53	17.47	3	46.8	97.67	59 50	18.54	1	51.4	98.48	4 12	17.20w	2	57	99.5	4 24	17.73	3	2.4	0.43	50 37
17.23	3	42.5	96.90	57 13	18.46	1	46.9	97.68	4 56	16.28	9	51.4	98.48	3 51	17.32	3	57.2	99.51	56 11	17.52	2	2.5	0.44	57 53
16.95	6	42.5	96.90	3 53	17.11	3	47.1	97.71	51 29	18.31	2	51.6	98.51	56 57	18.58	2	57.3	99.52	0 39	16.42	8	2.5	0.45	56 51
16.91	8	42.5	96.90	2 39	17.87	3	47.1	97.71	57 23	18.19	3	51.6	98.52	56 20	14.09	12	57.4	99.54	57 02	17.89	3	2.5	0.45	54 22
17.76	3	42.6	96.91	51 13	17.93	3	47.1	97.72	54 49	17.54	3	51.6	98.52	53 10	15.34	10	57.5	99.56	57 39	15.94	9	2.6	0.46	4 05
18.32	2	42.7	96.93	53 56	16.13	9	47.2	97.75	1 15	18.04	3	51.9	98.56	57 53	17.32	3	57.5	99.56	4 25	16.84	3	2.6	0.47	50 33
18.21	2	42.6	96.93	2 46	18.46	1	47.3	97.75	57 44	13.89	15	52.0	98.59	57 45	17.59	3	57.7	99.60	52 38	14.57	14	2.7	0.48	3 03
16.62	8	42.7	96.94	50 47	16.70	8	47.5	97.80	1 40	16.32	9	52.2	98.62	54 16	15.05	11	58.1	99.66	51 39	18.29	1	2.7	0.49	0 17
17.64	3	42.7	96.94	0 03	17.72	3	47.6	97.82	3 48	18.33	3	52.3	98.65	2 32	17.44	3	58.3	99.70	59 46	17.59	3	2.7	0.49	50 08
18.72	1	42.7	96.95	57 32	17.95	3	47.7	97.83	3 57	11.28w	13	52.5	98.66	51 26	17.54:	3	58.3	99.70	0 24	17.48	3	2.7	0.49	53 18
16.38	9	42.8	96.97	0 51	18.33	3	47.8	97.83	51 34	16.05	9	52.6	98.69	51 09	17.18	3	58.4	99.71	55 52	18.54	1	2.9	0.52	2 05
18.26	3	43.0	96.99	52 15	18.32	2	47.8	97.84	54 43	17.91	3	52.7	98.71	2 13	18.54	2	58.4	99.71	59 06	16.81	8	3.0	0.53	0 34
16.16	8	43.0	96.99	50 36	16.56	9	47.9	97.86	2 24	16.54	8	52.7	98.71	4 57	16.32	8	58.6	99.75	58 30	15.78	8	3.2	0.56	53 46
18.64	2	43.0	97.00	3 04	17.65	3	48.0	97.87	53 23	17.70	3	53.0	98.76	50 30	16.78	8	58.6	99.75	54 06	18.24	2	3.2	0.57	55 33
14.93	11	43.1	97.02	55 18	16.84	8	48.0	97.89	55 11	16.60	8	53.1	98.78	58 30	16.81	6	58.8	99.78	4 11	16.80	8	3.2	0.57	59 12
18.54	1	43.2	97.03	2 52	18.40	2	48.1	97.90	57 34	17.14	4	53.3	98.81	53 41	18.19	2	58.8	99.79	2 10	14.80	12	3.6	0.64	59 34
15.59	10	43.3	97.05	57 39	16.83	8	48.2	97.91	0 29	18.54	1	53.3	98.81	4 25	17.09	3	58.8	99.79	57 39	18.07	3	3.6	0.64	3 10
18.08	3	43.4	97.07	3 52	18.36	2	48.3	97.94	2 45	18.10	3	53.4	98.83	56 14	18.03	3	59.1	99.84	58 37	16.66	7	3.7	0.65	4 14
16.78	4	43.5	97.09	58 07	17.33	3	48.4	97.94	50 30	18.30	3	53.5	98.85	0 52	14.53	12	59.1	99.84	52 17	18.13	3	3.7	0.65	2 02
18.02	3	43.7	97.12	4 21	17.64	3	48.3	97.94	56 36	14.26	14	53.6	98.86	53 36	18.46	1	59.1	99.85	53 18	18.53	2	3.7	0.65	59 58
18.32	2	43.9	97.15	1 19	16.60	9	48.4	97.95	59 50	16.79	5	53.8	98.90	50 39	16.83	5	59.1	99.85	58 53	18.40	2	3.8	0.67	59 47
18.72	1	44.0	97.17	2 11	18.40	2	48.5	97.97	2 56	16.20	9	54.1	98.96	1 24	16.73	3	59.1	99.85	4 46	17.17	3	3.8	0.67	57 07
18.04	2	44.0	97.17	59 50	17.86	3	48.7	98.00	57 18	16.56	8	54.4	99.00	51 43	17.58	1	59.1	99.85	4 04	16.56	8	3.7	0.67	50 09
18.47	2	44.2	97.20	58 06	17.64	3	48.8	98.01	53 05	18.54	1	54.5	99.04	4 39	15.23	11	59.2	99.87	2 11	17.59	3	3.9	0.69	1 24
15.84	9	44.4	97.25	58 59	18.50	2	48.9	98.04	59 22	14.56	12	54.5	99.04	59 47	17.77	3	59.3	99.88	2 39	18.40	2	3.9	0.69	2 19
17.33	3	44.6	97.26	54 17	18.46	1	49.0	98.05	53 25	15.88	9	54.5	99.04	59 04	13.94	13	59.5	99.91	1 31	17.88	3	3.8	0.69	52 42
18.72	1	44.6	97.28	59 59	18.54	1	48.9	98.05	4 54	18.37	1	54.7	99.06	52 29	17.74	3	59.5	99.91	56 08	18.01	3	4.1	0.72	57 46
15.51	10	44.6	97.28	4 08	14.94	12	49.1	98.07	52 10	16.38	9	54.8	99.08	58 52	16.61	8	59.5	99.92	51 11	15.39	10	4.1	0.72	56 31
17.89	3	44.9	97.32	51 00	18.54	1	49.2	98.08	59 51	17.99	3	55.1	99.13	2 48	17.88	3	59.7	99.95	4 15	16.75	8	4.2	0.74	4 22
16.81	5	45.0	97.34	52 49	18.09	2	49.2	98.08	57 56	18.04	3	55.1	99.14	53 21	18.40	2	59.8	99.96	2 42	18.46	1	4.3	0.76	54 25
17.53	3	44.9	97.34	58 42	17.06	3	49.2	98.08	55 49	17.68	1	55.3	99.16	54 59	16.82	8	59.8	99.97	2 17	16.54	8	4.4	0.79	2 11
18.28	3	45.0	97.35	59 17	16.30	9	49.3	98.11	4 14	17.33	3	55.3	99.17	52 18	16.96	5	59.9	99.99	4 22	17.69	2	4.4	0.79	58 05

25 prec. + $58^{s}.8$, + 7′ 3″

901—935				
Mag.		α 50^{m}	x	$y+60'$ / y
		s	′	′ ″
18.33	2	4.6	0.81	56 19
18.36	2	4.6	0.81	0 40
15.06	12	4.7	0.84	52 41
18.28	2	4.8	0.85	56 00
18.24	2	4.9	0.87	2 27
16.73	5	5.0	0.88	54 11
17.77	3	5.0	0.89	0 18
17.97	3	5.1	0.90	4 06
17.45	3	5.1	0.90	2 08
16.54	8	5.2	0.91	59 51
15.49	10	5.2	0.92	56 33
16.11	9	5.2	0.92	54 45
16.77	8	5.2	0.92	53 28
16.40	8	5.3	0.94	52 08
16.60	7	5.3	0.95	51 29
16.27	7	5.3	0.95	51 09
17.49	1	5.4	0.95	4 09
16.57	8	5.5	0.96	56 56
18.26	3	5.5	0.97	57 13
17.86	1	5.6	0.98	2 18
16.75	5	5.6	0.99	55 48
18.10	2	5.5	0.99	50 00
16.98	5	5.7	1.00	56 06
17.31	3	5.7	1.01	51 23
17.65	3	5.9	1.05	52 33
18.16	2	6.1	1.09	3 34
14.66	14	6.3	1.12	1 27
17.90	2	6.4	1.13	52 49
18.32	2	6.4	1.14	58 21
17.85	3	6.4	1.14	55 35
17.95	3	6.5	1.15	52 40
18.49	2	6.5	1.15	0 19
16.66	6	6.6	1.16	58 01
17.94	2	6.6	1.17	0 52
18.16	2	6.6	1.17	2 26

936—970				
Mag.		α 50^{m}	x	$y+60'$ / y
		s	′	′ ″
18.46	1	6.9	1.22	3 36
15.76	9	7.0	1.24	3 18
18.04	3	7.1	1.25	3 06
13.88	13	7.2	1.29	50 16
16.27	8	7.2	1.29	51 10
18.36	2	7.2	1.29	58 40
16.63	8	7.4	1.30	4 40
17.64	3	7.4	1.31	55 09
16.29	9	7.5	1.33	0 28
18.46	1	7.7	1.37	2 23
18.46	1	7.8	1.38	58 11
16.46	8	8.0	1.41	52 17
17.41	2	8.1	1.43	54 45
15.02	11	8.1	1.44	53 53
16.44	8	8.3	1.46	52 54
17.10	3	8.4	1.49	50 31
17.99	3	8.4	1.49	55 40
18.46	1	8.6	1.52	57 26
16.93	4	8.7	1.54	52 36
16.34	8	8.8	1.57	53 20
17.79	3	8.8	1.57	57 02
17.76	3	8.9	1.58	58 19
16.13	8	9.2	1.63	51 21
18.04	2	9.3	1.65	56 20
18.24	2	9.4	1.66	52 53
15.43	8	9.4	1.66	51 55
16.66	8	9.6	1.70	55 54
16.16	7	9.7	1.71	50 48
17.45	3	9.8	1.74	53 25
17.92	3	9.8	1.74	1 05
16.68	8	9.9	1.75	3 47
16.76	8	9.9	1.75	1 42
16.21*	1	9.9	1.75	50 23
17.10	3	9.9	1.75	55 37
16.71	8	9.9	1.75	57 14

971—1005				
Mag.		α 50^{m}	x	$y+60'$ / y
		s	′	′ ″
16.56	8	10.0	1.76	52 07
16.29	1	10.0	1.77	50 20
16.30	8	10.1	1.78	52 34
18.37	1	10.1	1.78	0 50
18.46	1	10.1	1.79	0 53
17.28	3	10.2	1.80	54 28
16.71	8	10.2	1.80	58 49
17.73	3	10.2	1.81	56 59
15.67	9	10.3	1.81	2 44
15.25	12	10.3	1.81	4 18
18.37	1	10.4	1.83	2 05
18.46	1	10.3	1.83	58 42
17.79	3	10.4	1.84	1 06
17.94	3	10.5	1.85	4 28
18.10	3	10.5	1.87	55 50
15.83	9	10.6	1.88	50 46
17.82	3	10.8	1.90	2 40
18.46	1	10.8	1.91	1 59
17.96	3	11.1	1.97	51 48
18.04	3	11.1	1.97	57 15
14.17	14	11.3	2.00	4 17
17.23	3	11.3	2.01	52 40
17.43	3	11.3	2.01	50 46
15.37	11	11.4	2.02	3 47
17.96	3	11.5	2.03	56 34
15.99	8	11.5	2.04	1 24
18.46	1	11.7	2.06	59 48
17.76	3	11.9	2.10	57 22
18.07	3	12.0	2.11	3 00
16.97	5	12.0	2.11	0 15
18.38	2	12.0	2.12	2 28
17.93	3	12.3	2.16	1 38
18.28	2	12.2	2.16	59 59
17.62	3	12.3	2.17	3 42
17.57	3	12.3	2.19	53 56

1006—1040				
Mag.		α 50^{m}	x	$y+60'$ / y
		s	′	′ ″
17.84	3	12.4	2.20	56 58
18.46	1	12.5	2.20	2 49
16.36	8	12.6	2.22	4 02
18.46	1	12.7	2.24	2 54
17.56	3	12.6	2.24	56 37
15.68	9	12.8	2.26	0 19
17.77	3	12.8	2.27	56 15
16.46	8	12.9	2.28	50 56
17.55	3	13.0	2.31	50 55
15.39	10	13.1	2.31	57 18
18.37	1	13.2	2.34	53 51
16.07	9	13.2	2.34	54 55
18.45	2	13.4	2.37	58 54
17.19	3	13.4	2.37	55 10
17.09	3	13.5	2.38	55 33
14.91	9	13.5	2.38	56 44
16.55	8	13.5	2.38	1 58
15.82	9	13.5	2.40	51 11
18.01	3	13.6	2.42	53 46
15.35	10	13.8	2.45	58 02
16.75	6	13.8	2.45	55 39
17.85	2	13.9	2.46	52 52
18.37	1	14.0	2.47	4 37
17.38	2	14.0	2.49	57 33
16.92	5	14.6	2.58	53 30
18.46	1	14.6	2.58	2 12
14.56	13	14.8	2.61	4 49
17.82	3	14.8	2.61	58 30
17.07	3	14.8	2.63	54 22
18.29	1	14.8	2.63	51 11
16.68	8	14.9	2.64	59 07
17.72	3	15.0	2.66	50 45
18.46	1	15.1	2.67	58 06
16.28	9	15.1	2.67	57 11
18.37	1	15.1	2.67	2 29

1041—1058				
Mag.		α 50^{m}	x	$y+60'$ / y
		s	′	′ ″
12.08	16	15.3	2.72	54 25
18.13	3	15.5	2.75	55 59
16.20	9	15.6	2.76	1 53
15.51	8	15.6	2.77	2 09
15.76	9	15.6	2.77	4 44
15.99	8	15.7	2.79	51 14
18.37	1	16.0	2.83	55 42
16.99	3	16.1	2.85	55 23
15.91	9	16.1	2.85	51 33
17.68	3	16.2	2.86	50 39
17.88	3	16.2	2.86	52 42
16.84	3	16.2	2.86	50 03
17.31	3	16.2	2.87	57 58
17.58	1	16.3	2.89	4 20
16.42	8	16.6	2.93	3 21
16.15	9	16.7	2.97	51 05
17.55	3	16.9	3.00	53 14
16.58	8	17.0	3.00	55 04

25 prec. + $58^{\mathrm{s}}.8$, + 7′ 3″

21^{h}

Area 41. Supplementary Stars

+ 44°, + 45°

1s—15s				
Mag.		α 48^{m}	x	$y+60'$ / y
		s	′	′
16.37	7	32	84.4	59.6
17.89	2	32	84.5	58.0
17.85	2	33	84.6	56.3
15.74	7	33	84.6	57.4
16.50	7	33	84.7	58.9
16.32	7	33	84.7	1.7
17.79	2	34	84.8	58.3
16.53	7	34	84.8	58.4
17.87	2	35	84.9	58.4
17.59	2	35	85.0	57.0
17.31	2	35	85.0	59.6
17.14	2	35	85.0	59.7
17.43	2	35	85.0	1.4
17.91	2	35	85.0	1.8
17.89	2	36	85.1	59.6

16s—30s				
Mag.		α 48^{m}	x	$y+60'$ / y
		s	′	′
15.68	7	36	85.1	2.8
17.91	2	36	85.2	54.5
17.34	2	36	85.2	56.0
16.26	7	36	85.2	0.8
16.51	7	37	85.3	55.0
16.48	7	37	85.3	55.4
15.92	5	37	85.3	2.9
17.77	2	38	85.4	54.3
17.61	2	37	85.4	56.7
16.48	7	37	85.4	59.3
18.13	2	37	85.4	59.9
16.46	7	37	85.4	2.2
17.91	2	38	85.5	57.3
16.44	7	38	85.5	58.0
13.94	12	39	85.6	58.1

31s—45s				
Mag.		α 48^{m}	x	$y+60'$ / y
		s	′	′
16.24	7	39	85.6	0.8
17.61	2	38	85.6	3.5
16.22	6	39	85.7	56.3
16.88	3	39	85.7	0.9
17.63	2	39	85.7	2.3
15.87	6	39	85.7	2.8
17.75	2	40	85.8	53.6
17.40	2	40	85.8	53.9
16.46	6	40	85.8	55.4
18.02	2	40	85.8	0.3
12.14	15	39	85.8	1.8
17.89	2	40	85.8	3.9
17.89	2	40	85.9	53.7
17.82	2	40	85.9	58.8
17.85	2	40	85.9	59.9

46s—60s				
Mag.		α 48^{m}	x	$y+60'$ / y
		s	′	′
17.81	2	40	85.9	1.3
17.86	2	41	86.0	53.4
17.48	2	41	86.0	55.3
18.13	2	41	86.0	55.8
16.05	7	41	86.0	1.8
17.85	2	41	86.0	4.0
17.22	2	41	86.1	55.6
18.09	2	41	86.1	56.3
17.27	2	41	86.1	1.4
17.41	2	41	86.1	3.6
17.95	2	42	86.2	55.8
17.30	2	42	86.2	57.0
15.30	7	42	86.2	1.0
16.48	5	42	86.2	1.7
17.75	2	42	86.2	4.6

61s—75s				
Mag.		α 48^{m}	x	$y+60'$ / y
		s	′	′
17.87	2	43	86.3	52.3
16.52	7	43	86.3	53.9
15.29	9	43	86.3	54.1
15.47	7	42	86.3	0.3
17.49	2	42	86.3	0.4
16.39	7	42	86.3	3.3
16.16	7	42	86.3	4.2
17.85	2	43	86.4	52.6
17.30	2	43	86.4	55.9
17.95	2	43	86.4	1.2
16.57	6	44	86.5	57.1
17.81	2	44	86.5	57.5
15.33	8	44	86.5	59.5
16.54	7	44	86.5	3.5
17.27	2	44	86.6	54.4

25 prcc. + $58^{\mathrm{s}}.7$, + 7′ 2″

76s—135s					136s—195s					196s—255s					256s—315s					316s—375s				
Mag.		α 48^{m}	x	y+60′ / y	Mag.		α 48^{m}	x	y+60′ / y	Mag.		α 49^{m}	x	y+60′ / y	Mag.		α 49^{m}	x	y+60′ / y	Mag.		α 49^{m}	x	y+60′ / y
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
17.41	2	44	86.6	1.4	17.43	2	51	87.8	2.1	16.99	2	7	90.7	8.4	17.40	2	20	92.9	9.3	17.95	2	29	94.6	9.6
17.88	2	44	86.6	2.8	16.54	7	52	87.9	52.4	16.39	7	7	90.7	9.2	17.59	2	21	93.0	48.9	16.63	7	30	94.7	5.4
16.56	7	44	86.6	2.9	16.55	7	52	87.9	52.7	16.62	5	8	90.8	49.0	14.30	10	21	93.0	49.1	17.91	2	30	94.7	6.3
17.09	2	44	86.6	4.1	17.82	2	52	87.9	53.3	17.87	2	8	90.8	7.6	12.63	15	21	93.0	49.6	17.69	2	30	94.7	7.2
17.59	2	45	86.7	54.0	16.59	7	52	87.9	57.5	16.42	7	8	90.8	8.6	16.39	7	20	93.0	10.0	17.05	2	30	94.7	10.0
16.53	7	45	86.7	55.4	18.02	2	52	87.9	57.9	16.55	7	8	90.9	5.6	16.51	7	21	93.1	6.7	16.27	4	31	94.8	47.9
15.19	9	45	86.7	56.1	16.62	7	52	87.9	58.4	18.17	2	9	91.0	6.2	16.50	6	22	93.2	49.9	17.25	2	30	94.8	7.2
11.49	15	45	86.7	56.3	15.06	10	52	87.9	59.1	15.21	8	9	91.0	7.3	13.36	15	22	93.3	49.8	16.43	7	30	94.8	10.2
16.58	5	45	86.7	1.7	18.17	2	52	87.9	0.2	16.59	7	10	91.1	5.5	16.48	6	22	93.3	49.9	17.71	2	31	94.9	48.9
14.50	11	45	86.7	3.0	16.53	7	51	87.9	6.3	17.73	2	10	91.2	6.0	14.86	10	22	93.3	7.0	17.87	2	31	94.9	6.5
17.69	2	45	86.7	3.6	17.14	2	51	87.9	6.4	17.85	2	10	91.2	9.1	14.80	9	22	93.3	9.2	17.75	2	31	94.9	9.6
17.73	2	45	86.8	52.2	17.84	2	52	88.0	51.7	16.97	2	11	91.3	49.9	17.75	2	23	93.4	48.2	17.89	2	32	95.0	48.3
17.75	2	46	86.8	52.3	17.93	2	52	88.0	54.4	17.91	2	11	91.3	5.7	17.67	2	23	93.4	48.4	16.27	7	32	95.0	6.3
18.09	2	45	86.8	2.1	16.46	7	52	88.0	2.7	17.65	2	11	91.3	9.2	15.03	10	23	93.4	8.1	17.16	2	32	95.0	6.9
15.15	10	45	86.8	3.4	16.13	7	52	88.0	4.3	17.79	2	11	91.4	7.2	15.60	7	23	93.4	8.2	13.84	13	32	95.0	7.4
16.52	7	46	86.8	4.5	16.44	7	52	88.0	7.0	16.44	7	11	91.4	7.6	17.36	2	23	93.4	9.2	17.71	2	32	95.0	8.6
17.01	2	45	86.8	4.7	17.84	2	53	88.2	7.6	16.22	7	11	91.4	8.3	16.54	7	23	93.5	48.8	17.48	2	32	95.0	8.7
16.57	4	45	86.8	5.4	17.81	2	54	88.3	7.1	16.60	7	12	91.5	6.4	17.80	2	24	93.7	47.8	16.51	7	32	95.1	5.7
17.55	2	46	86.9	52.1	17.59	2	54	88.3	7.5	18.02	2	12	91.5	7.8	17.15	2	24	93.7	7.6	16.76	7	33	95.2	5.2
13.98	12	46	86.9	54.5	14.69	10	54	88.4	5.5	17.73	2	12	91.6	5.7	17.89	2	25	93.8	49.8	16.36	7	33	95.2	5.7
17.39	2	46	86.9	56.6	10.78	11	55	88.5	7.3	18.13	2	12	91.6	6.6	17.57	2	25	93.8	5.4	17.57	2	33	95.2	7.0
17.59	2	46	86.9	57.6	16.56	7	57	88.9	5.3	17.73	2	12	91.6	7.1	18.20	2	25	93.8	6.2	14.87	10	33	95.3	48.7
16.50	7	46	86.9	58.0	16.53	7	58	89.1	7.3	17.88	2	12	91.6	7.6	17.75	2	25	93.8	6.7	16.49	7	33	95.3	49.3
17.63	2	46	86.9	58.8	16.82	2	59	89.2	49.5	16.19	7	13	91.7	49.4	17.78	2	25	93.8	7.9	15.37	9	33	95.3	49.6
17.16	2	46	86.9	0.0	16.08	7	59	89.2	6.2	17.85	2	13	91.7	7.8	17.23	2	25	93.8	8.3	18.20	2	33	95.3	5.4
13.17	15	46	86.9	3.2	16.34	7	59	89.3	5.7	16.41	7	13	91.7	8.7	16.39	6	25	93.8	8.6	17.27	2	33	95.3	5.8
17.93	2	47	87.0	55.9	16.12	7	59	89.3	7.6	17.59	2	14	91.8	6.6	16.95	2	25	93.8	9.0	17.07	2	33	95.3	8.4
17.98	2	46	87.0	3.4	15.31	8	60	89.4	5.2	17.61	2	13	91.8	7.3	16.40	3	25	93.8	9.1	16.53	7	34	95.4	7.0
16.44	7	47	87.1	54.2	17.99	2	60	89.4	5.9	17.19	2	14	91.8	7.5	16.14	6	25	93.8	9.2	17.84	2	35	95.5	48.6
17.99	2	47	87.1	55.1	17.04	2	60	89.4	6.8	17.69	2	14	91.9	49.6	17.86	2	25	93.8	9.6	17.07	2	35	95.5	49.7
18.24	2	47	87.1	59.6	18.24	2	60	89.5	5.5	17.35	2	14	91.9	5.4	17.80	2	25	93.8	10.0	16.30	7	35	95.6	47.6
17.87	2	47	87.1	0.1	16.61	4	61	89.6	5.1	17.95	2	14	91.9	6.0	17.73	2	26	93.9	47.9	16.36	7	35	95.6	49.7
17.59	2	47	87.1	6.4	16.61	7	61	89.6	6.0	17.63	2	15	92.0	49.2	17.31	2	25	93.9	6.1	16.70	7	35	95.6	6.4
17.53	2	48	87.2	51.9	16.29	7	61	89.6	7.7	17.68	2	15	92.0	5.7	17.59	2	25	93.9	6.5	15.41	7	35	95.6	8.0
15.82	7	48	87.2	57.5	17.64	2	62	89.7	49.4	17.84	2	15	92.0	9.1	18.17	2	25	93.9	7.8	16.51	5	36	95.7	7.5
16.52	7	48	87.2	58.3	16.50	7	62	89.7	6.7	17.68	2	15	92.1	5.7	16.49	7	25	93.9	10.1	17.41	2	36	95.7	8.8
18.09	2	48	87.2	58.4	17.11	2	62	89.8	50.0	17.76	2	16	92.2	49.2	16.28	7	26	94.0	48.6	18.09	2	36	95.8	5.1
17.79	2	47	87.2	0.4	16.54	7	62	89.8	6.6	17.73	2	16	92.2	49.8	17.67	2	26	94.0	6.1	16.12	7	36	95.8	6.6
18.02	2	47	87.2	0.5	17.91	2	62	89.8	7.1	17.59	2	16	92.2	7.4	18.00	2	26	94.0	8.6	16.70	5	36	95.8	7.3
16.55	5	48	87.2	3.1	17.95	2	62	89.8	7.6	14.63	10	16	92.2	8.2	16.23	7	27	94.1	6.4	17.49	2	36	95.8	8.2
17.79	2	47	87.2	4.4	18.17	2	63	89.9	5.7	17.61	2	17	92.3	48.3	17.59	2	27	94.1	8.2	17.93	2	36	95.8	9.5
17.68	2	47	87.2	6.3	16.46	7	63	89.9	8.6	17.73	2	17	92.3	49.5	16.49	7	27	94.2	48.0	17.57	2	36	95.8	9.6
16.33	7	48	87.3	3.0	17.78	2	63	89.9	8.7	17.95	2	17	92.3	49.6	15.86	7	28	94.2	49.3	14.52	10	37	95.9	47.9
17.76	2	48	87.3	4.4	14.31	8	64	90.0	49.2	17.45	2	16	92.3	6.4	14.69	11	27	94.2	49.4	16.41	7	37	95.9	8.4
17.61	2	49	87.4	51.6	15.74	6	64	90.0	49.7	17.33	2	16	92.3	8.3	17.41	2	27	94.2	9.3	17.75	2	37	95.9	9.2
16.43	7	49	87.4	52.1	18.09	2	64	90.0	7.0	17.56	2	17	92.4	6.0	17.51	2	27	94.2	10.0	16.63	5	37	96.0	47.9
17.95	2	49	87.4	54.6	16.59	7	64	90.2	6.2	17.59	2	17	92.4	6.4	15.91	7	28	94.3	47.9	14.52	12	37	96.0	8.8
16.60	7	48	87.4	58.6	16.53	7	65	90.3	5.7	16.32	7	17	92.4	7.4	16.45	7	28	94.3	48.6	16.57	7	38	96.1	7.9
18.04	2	49	87.4	2.8	16.68	5	65	90.3	6.9	15.68	7	18	92.5	48.1	16.62	5	28	94.3	49.4	15.99	6	39	96.2	48.0
16.40	7	49	87.5	55.6	17.53	2	65	90.3	8.3	17.71	2	18	92.5	48.9	17.24	2	28	94.3	5.3	16.51	7	39	96.2	48.4
17.13	2	49	87.5	0.5	16.48	7	65	90.3	8.6	17.63	2	18	92.6	48.9	18.09	2	28	94.3	7.4	16.72	5	39	96.2	48.8
18.13	2	49	87.5	2.5	17.99	2	66	90.4	8.4	17.79	2	19	92.6	49.0	17.63	2	28	94.3	8.3	15.23	10	38	96.2	6.1
17.19	2	49	87.5	5.7	17.20	2	66	90.4	8.5	16.50	7	18	92.6	7.5	17.85	2	28	94.4	9.5	18.06	2	39	96.3	49.8
16.17	7	50	87.6	56.4	17.87	2	66	90.5	5.3	17.43	2	18	92.6	8.6	16.16	7	28	94.4	10.1	17.67	2	39	96.3	7.3
14.26	11	50	87.6	4.1	17.79	2	66	90.5	6.7	17.68	2	19	92.7	8.3	16.52	7	29	94.5	8.6	17.37	2	39	96.3	8.2
16.49	7	50	87.6	6.5	17.77	2	66	90.5	6.9	17.79	2	19	92.8	6.4	17.82	2	30	94.6	49.1	17.25	2	39	96.3	9.5
16.38	7	50	87.6	6.8	16.43	7	66	90.5	7.4	17.88	2	19	92.8	8.3	18.24	2	29	94.6	6.9	16.32	7	40	96.4	9.3
16.24	7	50	87.7	2.5	17.95	2	66	90.6	5.6	17.67	2	19	92.8	9.5	13.52	14	29	94.6	7.5	17.73	2	39	96.4	10.0
17.02	2	51	87.8	55.4	18.24	2	66	90.6	6.3	16.93	2	20	92.9	49.3	17.91	2	29	94.6	8.0	18.02	2	40	96.5	5.6
17.97	2	51	87.8	59.4	17.57	2	67	90.6	8.8	17.91	2	20	92.9	8.8	16.36	7	29	94.6	8.4	16.60	7	40	96.5	6.8

25 prec. + $58^{\mathrm{s}}.7$, + 7′ 2

376*s*—435*s*					436*s*—495*s*					496*s*—555*s*					556*s*—615*s*					616*s*—675*s*				
Mag.		α 49^{m}	x	$y+60'$ / y	Mag.		α 49^{m}	x	$y+60'$ / y	Mag.		α 50^{m}	x	$y+60'$ / y	Mag.		α 50^{m}	x	$y+60'$ / y	Mag.		α 50^{m}	x	$y+60'$ / y
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
16.07	7	40	96.5	7.7	16.16	7	54	99.0	48.4	16.03	6	6	1.1	5.7	14.63	3	20	3.6	52.8	17.45	2	25	4.4	55.4
17.07	2	40	96.5	9.8	16.49	7	55	99.1	49.5	14.79	10	6	1.2	50.0	13.79	5	20	3.6	52.9	15.17	9	25	4.4	56.1
16.46	7	41	96.6	49.0	17.67	2	55	99.1	7.1	16.43	7	7	1.2	5.4	17.45	2	21	3.6	53.3	17.06	2	25	4.4	57.8
16.49	7	41	96.6	5.3	11.67	13	55	99.2	48.0	18.02	2	7	1.2	6.9	16.99	2	20	3.6	56.4	16.58	7	25	4.4	58.0
18.21	2	41	96.6	5.6	17.19	2	56	99.2	5.6	17.95	2	7	1.3	49.6	15.31	8	20	3.6	1.0	15.38	6	25	4.4	1.0
17.85	2	40	96.6	5.8	17.43	2	55	99.2	7.5	16.20	7	7	1.3	50.0	17.99	2	20	3.6	3.0	17.93	2	25	4.4	1.7
16.49	7	41	96.7	48.1	15.90	7	55	99.2	7.6	15.96	7	7	1.3	6.6	14.28	12	20	3.6	4.6	17.84	2	25	4.4	2.9
17.00	2	41	96.7	10.0	16.31	7	56	99.3	48.3	17.60	2	7	1.3	8.4	17.73	2	20	3.6	5.6	15.25	7	25	4.4	4.6
16.92	3	42	96.8	48.1	14.93	10	56	99.3	49.2	16.21	7	8	1.4	49.0	16.98	2	21	3.7	53.5	17.84	2	25	4.4	5.2
17.73	2	42	96.8	6.6	16.47	7	56	99.3	9.3	16.34	7	8	1.4	7.2	18.09	2	21	3.7	57.0	16.42	7	25	4.4	5.6
17.59	2	42	96.8	7.2	16.56	7	57	99.4	6.6	16.44	7	8	1.4	8.8	16.55	7	21	3.7	1.0	16.54	7	25	4.5	58.7
17.75	2	42	96.9	5.8	15.24	7	57	99.4	8.3	17.87	2	9	1.5	7.0	16.33	7	21	3.7	3.5	17.03	2	26	4.6	57.3
17.55	2	42	96.9	10.1	16.47	4	57	99.5	49.0	13.80	12	9	1.6	5.6	16.61	5	21	3.7	4.1	17.51	2	26	4.6	58.4
16.40	7	43	97.0	49.4	17.69	2	57	99.5	8.0	17.85	2	9	1.6	8.2	15.07	8	21	3.8	52.3	16.21	7	26	4.6	2.9
15.51	8	43	97.0	7.2	14.89	10	58	99.6	49.3	17.80	2	10	1.8	49.2	16.53	7	21	3.8	53.9	16.92	2	27	4.7	53.7
16.32	7	44	97.1	6.4	17.55	2	58	99.6	49.9	16.26	6	10	1.8	5.4	16.30	7	21	3.8	54.8	17.95	2	27	4.7	1.3
16.40	7	44	97.1	7.7	16.42	7	58	99.7	6.4	17.81	2	10	1.8	6.0	16.08	7	21	3.8	57.8	16.55	7	27	4.7	1.8
16.50	7	44	97.1	8.6	16.34	6	58	99.7	8.2	15.08	9	11	1.9	5.6	17.18	2	21	3.8	58.8	16.31	7	27	4.8	53.3
16.29	7	44	97.1	9.3	17.59	2	58	99.7	8.9	16.27	6	11	1.9	8.2	16.60	7	21	3.8	59.8	16.35	7	27	4.8	53.6
16.40	7	44	97.2	47.8	14.25	9	58	99.7	9.6	17.31	2	12	2.2	6.3	16.53	7	22	3.8	0.7	17.25	2	27	4.8	53.8
16.32	6	44	97.2	7.4	17.16	2	59	99.8	49.6	17.33	2	12	2.2	7.0	18.02	2	22	3.8	0.9	16.66	5	27	4.8	3.4
14.81	10	45	97.3	48.4	17.79	2	59	99.9	5.2	17.41	2	12	2.2	7.2	15.24	7	22	3.8	3.1	16.51	7	27	4.8	3.6
18.12	2	45	97.3	5.6	16.56	7	59	99.9	6.0	17.85	2	13	2.3	5.7	17.77	2	22	3.8	3.9	13.71	12	28	4.9	55.5
14.52	12	45	97.3	5.7	18.06	2	59	99.9	7.0	17.73	2	13	2.3	7.6	16.74	3	22	3.8	4.0	16.01	4	28	4.9	55.6
16.69	7	45	97.3	6.9	16.75	5	59	99.9	7.9	17.73	2	13	2.3	7.9	17.89	2	21	3.8	6.2	17.53	2	28	4.9	58.2
17.71	2	46	97.5	8.3	17.07	2	60	0.0	49.4	15.93	6	15	2.6	5.2	16.24	7	22	3.8	6.8	14.10	11	28	4.9	0.4
16.45	7	46	97.6	47.6	17.47	2	60	0.0	49.6	17.19	2	15	2.6	5.3	16.33	7	22	3.9	53.9	18.02	2	28	4.9	2.4
16.61	7	46	97.6	7.2	13.42	16	61	0.1	49.8	17.67	2	15	2.6	5.4	15.91	8	22	3.9	55.4	16.50	7	28	4.9	2.8
17.95	2	46	97.6	8.2	17.87	2	61	0.1	5.9	17.37	2	15	2.6	7.3	17.35	2	22	3.9	56.9	17.43	2	28	4.9	3.0
15.40	7	46	97.6	10.1	17.07	2	61	0.1	8.7	17.84	2	16	2.9	7.0	12.49	14	22	3.9	57.1	15.83	6	28	4.9	5.1
16.02	6	47	97.7	7.5	15.05	10	61	0.2	5.6	17.77	2	18	3.1	53.1	16.58	7	22	3.9	57.2	15.92	5	28	5.0	54.2
16.98	2	48	97.8	9.6	16.55	7	61	0.2	7.1	16.60	7	18	3.1	54.8	18.03	2	22	3.9	59.2	17.53	2	28	5.0	55.9
17.64	2	48	97.9	49.3	15.41	8	61	0.2	7.4	17.49	2	18	3.1	59.6	17.86	2	22	3.9	2.4	17.76	2	29	5.0	57.7
18.21	2	48	97.9	6.7	15.28	8	62	0.3	48.3	17.33	2	18	3.1	59.8	16.08	5	22	3.9	2.6	15.98	7	28	5.0	0.4
17.63	2	48	97.9	8.0	17.49	2	62	0.3	6.0	17.42	2	18	3.1	2.3	16.27	7	22	3.9	6.6	14.74	10	29	5.1	54.3
17.19	2	49	98.0	6.6	17.53	2	62	0.3	8.3	15.61	8	18	3.2	57.9	16.44	7	22	4.0	51.5	17.53	2	29	5.1	54.8
14.46	12	49	98.1	9.6	16.97	2	62	0.4	49.2	16.60	7	18	3.2	58.6	18.24	2	23	4.0	56.9	17.61	2	29	5.1	4.1
17.79	2	49	98.1	9.9	16.55	7	62	0.4	5.9	15.15	10	18	3.2	59.2	13.91	12	23	4.0	0.0	16.49	7	29	5.2	57.7
16.37	7	50	98.2	47.8	14.92	8	62	0.4	7.4	17.21	2	18	3.2	2.6	14.93	9	23	4.0	2.0	16.36	7	29	5.2	58.5
18.13	2	50	98.2	5.3	17.95	2	62	0.4	7.7	17.73	2	19	3.3	51.3	17.81	2	23	4.0	5.2	18.13	2	30	5.2	59.7
17.79	2	50	98.2	5.4	17.81	2	63	0.5	8.4	17.23	2	19	3.3	57.6	17.61	2	23	4.0	5.3	17.75	2	29	5.2	0.6
17.85	2	50	98.2	6.9	14.67	11	63	0.6	49.6	18.00	2	19	3.3	59.2	17.65	2	23	4.1	56.3	17.93	2	29	5.2	1.1
17.64	2	50	98.2	9.2	15.75	5	63	0.6	49.8	16.67	7	19	3.3	0.1	17.17	2	23	4.1	59.3	17.15	2	29	5.2	1.6
14.81	8	50	98.3	8.5	18.21	2	63	0.6	5.2	16.25	7	19	3.3	6.9	18.00	2	23	4.1	59.7	17.97	2	30	5.3	55.8
16.32	7	50	98.3	9.4	17.79	2	63	0.6	7.2	17.80	2	19	3.4	57.3	16.36	7	23	4.1	2.3	15.31	9	30	5.3	58.0
17.95	2	51	98.4	6.1	17.91	2	63	0.6	7.6	16.81	4	19	3.4	57.7	16.50	7	23	4.1	4.4	17.73	2	30	5.3	59.3
18.02	2	51	98.4	8.3	14.40	12	63	0.6	9.2	16.38	7	19	3.4	58.5	16.50	7	23	4.1	4.9	17.35	2	30	5.3	2.4
17.91	2	52	98.6	48.2	17.79	2	65	0.8	5.3	17.85	2	19	3.4	59.8	16.28	7	24	4.2	51.8	17.79	2	30	5.3	3.4
17.56	2	52	98.6	5.3	18.21	2	64	0.8	5.6	16.52	7	20	3.4	0.5	15.54	7	23	4.2	53.1	18.13	2	31	5.4	56.6
17.34	2	52	98.6	5.5	17.87	2	65	0.8	7.0	17.55	2	19	3.4	1.8	17.78	2	24	4.2	55.6	16.06	7	31	5.4	1.4
17.89	2	52	98.6	6.1	15.66	4	65	0.8	7.4	17.99	2	19	3.4	2.9	16.51	3	23	4.2	56.7	17.82	2	31	5.4	3.8
17.12	2	53	98.7	49.1	17.59	2	65	0.8	8.2	8.42	7	19	3.4	4.3	17.56	2	24	4.2	4.6	17.17	2	31	5.5	57.2
17.57	2	53	98.7	6.3	16.39	6	64	0.8	9.2	17.15	2	20	3.5	50.8	16.74	5	24	4.3	56.2	15.30	9	31	5.5	0.9
18.09	2	53	98.7	7.6	17.59	2	65	0.9	49.5	17.26	2	20	3.5	53.6	17.97	2	24	4.3	56.8	16.59	3	31	5.5	1.4
18.02	2	53	98.7	8.4	16.73	5	65	0.9	5.6	17.59	2	20	3.5	54.6	17.79	2	24	4.3	58.7	16.45	7	32	5.6	53.9
17.29	2	53	98.8	5.1	14.38	11	65	0.9	6.4	17.95	2	20	3.5	58.4	16.02	7	24	4.3	59.9	16.40	7	31	5.6	54.2
14.48	12	53	98.8	7.2	16.20	7	65	0.9	6.9	16.62	7	20	3.5	1.0	14.43	12	24	4.3	2.3	17.93	2	31	5.6	54.3
16.06	7	53	98.8	7.4	17.55	2	65	0.9	9.1	17.63	2	20	3.5	6.4	16.06	7	24	4.3	3.4	17.07	2	32	5.6	57.7
17.34	2	54	98.9	7.0	17.74	2	66	1.0	6.2	17.21	2	20	3.6	52.0	15.39	8	24	4.3	4.0	17.93	2	31	5.6	1.9
16.59	4	54	99.0	48.2	13.39	15	66	1.1	49.0	17.09	2	20	3.6	52.6	17.76	2	25	4.4	54.6	17.02	2	32	5.7	54.0

25 prcc. + 58ˢ.8, + 7′ 3″

21^{h} Area 41. Supplementary Stars $+44°, +45°$

676s—685s				686s—695s				696s—705s				706s—715s				716s—717s			
Mag.	α 50ᵐ	x	y+60′ / y	Mag.	α 50ᵐ	x	y+60′ / y	Mag.	α 50ᵐ	x	y+60′ / y	Mag.	α 50ᵐ	x	y+60′ / y	Mag.	α 50ᵐ	x	y+60′
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
17.69 2	33	5.8	58.7	14.68 10	34	6.1	58.6	15.36 8	36	6.3	57.4	15.29 8	37	6.6	59.8	17.63 2	40	7.0	58.0
18.06 2	33	5.8	59.4	15.11 9	34	6.1	59.7	17.56 2	36	6.3	57.5	17.63 2	37	6.6	0.1	16.92 2	40	7.1	58.5
18.06 2	33	5.8	59.9	15.38 6	35	6.1	1.0	16.52 7	36	6.3	0.1	16.48 7	37	6.6	2.4				
15.41 7	33	5.8	1.5	14.13 8	35	6.1	1.2	14.16 10	36	6.3	0.4	17.59 2	38	6.7	56.3				
17.57 2	33	5.9	54.7	16.12 7	35	6.1	1.5	17.91 2	36	6.3	1.9	17.57 2	38	6.7	58.6				
17.91 2	33	5.9	56.6	17.35 2	35	6.1	2.6	16.44 7	36	6.4	57.2	17.31 2	38	6.7	0.9				
16.54 7	33	5.9	59.7	17.85 2	35	6.1	2.8	16.91 2	36	6.4	2.3	17.71 2	38	6.8	57.6				
17.95 2	33	5.9	2.1	16.48 7	35	6.2	57.5	17.33 2	36	6.4	2.7	16.85 2	38	6.8	58.5				
15.76 7	33	5.9	2.5	17.19 2	35	6.2	2.8	17.61 2	37	6.6	57.8	15.20 8	38	6.8	1.2				
16.43 7	34	6.1	58.1	16.49 7	36	6.3	56.6	16.26 5	37	6.6	58.5	17.76 2	39	6.9	58.1				

25 prec. $+ 58^{s}.8$, $+ 7' 3''$

22^{h} Area 42. Center for 1900: $22^{h}\ 49^{m} + 45° 10'$ $(15' \times 15')$ $+45°$

1—40				41—80				81—120				121—160				161—200			
Mag.	α 48ᵐ	x	y+10′	Mag.	α 48ᵐ	x	y+10′	Mag.	α 48ᵐ	x	y+10′	Mag.	α 48ᵐ	x	y+10′	Mag.	α 48ᵐ	x	y+10′
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
16.47 8	3.5	90.04	7 49	17.25 3	13.2	91.73	2 35	16.53 8	20.0	92.96	10 20	17.45 3	26.3	94.06	11 37	17.77 3	32.9	95.23	11 54
17.15 3	4.0	90.10	5 00	18.17 2	13.3	91.76	7 56	14.39 9	20.2	92.97	2 46	16.65 8	26.6	94.11	5 03	17.48 2	33.1	95.27	12 01
15.07 8	4.0	90.10	4 27	17.85 3	13.3	91.78	13 08	18.06 3	20.1	92.99	14 18	16.60 6	26.7	94.12	0 10	17.35 3	33.2	95.29	11 36
17.84 3	4.1	90.13	2 25	17.99 3	13.6	91.80	3 11	16.65 5	20.4	93.00	1 07	16.97 5	26.9	94.16	10 59	16.26 8	33.4	95.30	3 55
16.27 8	4.2	90.14	2 37	16.64 8	13.9	91.89	10 37	16.47 4	20.5	93.03	1 19	17.97 3	27.0	94.18	8 25	15.74 8	33.5	95.33	5 19
16.37 8	4.3	90.17	4 25	17.84 3	14.2	91.90	0 40	17.55 3	20.7	93.09	11 10	17.70 3	27.2	94.21	8 46	17.29 3	33.6	95.34	0 41
15.38 8	4.7	90.25	7 02	18.23 1	14.4	91.97	8 04	17.81 3	21.2	93.15	0 35	16.72 7	27.3	94.23	9 35	14.76 9	33.6	95.34	3 41
18.06 3	5.0	90.32	10 44	15.36 10	14.5	91.98	14 09	16.46 8	21.3	93.16	2 43	13.16 12	27.4	94.25	0 59	17.74 3	33.8	95.36	4 39
17.26 3	5.8	90.43	0 34	16.58 8	14.6	92.00	10 45	16.12 7	21.2	93.17	11 27	17.96 3	27.4	94.27	13 36	17.18 3	33.8	95.38	13 13
18.04 3	5.9	90.44	3 50	17.49 3	14.7	92.02	5 38	17.02 3	21.6	93.21	2 07	17.26 3	27.6	94.28	7 30	17.89 3	33.9	95.40	12 23
17.69 3	5.9	90.48	11 55	17.65 3	14.7	92.03	13 05	17.77 3	21.5	93.21	8 18	17.42 3	27.5	94.29	14 08	17.44 3	33.9	95.40	8 22
16.43 8	6.1	90.50	6 06	18.15 3	15.0	92.09	14 40	17.83 3	22.3	93.34	2 47	16.68 8	28.0	94.36	10 02	15.35 9	33.9	95.40	6 02
17.46 3	6.3	90.52	3 31	14.73 9	15.2	92.12	10 18	16.66 8	22.3	93.35	5 46	18.02 3	28.1	94.37	2 36	17.57 3	34.0	95.40	2 04
16.44 8	6.2	90.53	12 23	17.33 3	15.3	92.13	14 21	14.92 8	22.4	93.36	7 35	16.24 8	28.1	94.37	2 05	16.07 7	34.0	95.40	1 15
17.41 3	6.4	90.57	10 39	17.47 3	15.5	92.15	6 23	17.69 3	22.4	93.37	0 15	11.49w12	28.1	94.37	1 54	16.91 3	34.2	95.44	0 15
16.54 8	6.7	90.61	11 57	18.14 1	15.6	92.16	6 38	14.72 10	22.5	93.38	2 55	17.53 3	28.2	94.38	1 30	16.78 8	34.2	95.47	14 35
16.51 8	6.9	90.64	6 15	17.27 3	15.5	92.17	11 05	13.20w11	22.7	93.42	1 24	16.32 8	28.0	94.38	9 57	18.26 3	34.7	95.54	3 05
17.48 3	7.2	90.70	13 32	17.56 3	15.7	92.17	0 01	16.84 7	22.7	93.42	7 51	16.48 8	28.4	94.41	1 03	15.94 8	34.7	95.54	4 00
15.43 9	7.4	90.73	5 44	16.72 8	16.2	92.28	7 53	17.18 3	22.9	93.47	14 43	17.39 3	28.7	94.48	5 33	17.26 3	34.8	95.56	12 02
16.59 8	7.4	90.74	12 14	14.64 9	16.5	92.33	5 55	15.14 10	23.1	93.48	2 39	16.72 8	28.9	94.52	12 06	17.08 5	34.9	95.59	12 47
14.72 8	7.5	90.76	11 31	17.40 2	16.4	92.33	14 12	17.51 3	23.2	93.51	5 53	17.98 3	29.0	94.55	13 15	17.37 3	34.9	95.59	12 49
14.20 10	7.7	90.80	11 38	17.31 3	16.9	92.38	0 18	16.74 8	23.1	93.51	13 29	16.84 8	29.6	94.64	9 03	17.77 3	35.1	95.60	2 21
17.09 3	8.0	90.82	4 43	15.39 9	17.6	92.52	7 43	17.77 3	23.3	93.54	13 39	17.22 3	30.1	94.71	2 34	17.69 3	35.4	95.66	7 03
17.13 3	8.0	90.83	9 38	16.58 6	17.7	92.53	1 34	17.38 3	23.3	93.54	9 57	17.33 3	30.2	94.73	0 00	16.09 7	35.5	95.67	4 09
18.20 3	8.9	90.98	9 17	16.11 8	17.8	92.57	14 03	17.25 3	23.3	93.54	9 29	17.92 3	30.5	94.79	3 10	15.74 8	35.6	95.69	2 06
11.54w12	8.8	90.99	11 28	16.10 8	18.2	92.64	14 17	17.01 3	23.6	93.56	0 40	18.05 1	30.5	94.79	0 56	14.25 12	35.8	95.74	11 55
17.07 3	9.9	91.17	5 43	18.25 3	18.3	92.67	12 21	15.97 8	23.6	93.56	0 07	14.62 9	30.9	94.87	0 52	17.79 3	36.0	95.76	1 22
16.42 8	10.0	91.17	4 52	14.98 9	18.5	92.67	1 43	17.75 3	23.9	93.63	4 11	18.09 2	31.4	94.96	11 14	17.09 3	36.0	95.76	2 54
16.35 8	10.1	91.18	3 54	18.26 3	18.5	92.68	5 49	16.48 8	24.1	93.66	1 39	15.67 9	31.5	94.97	4 12	17.82 3	36.0	95.78	10 20
15.10 9	10.5	91.26	9 04	17.88 3	18.7	92.70	4 42	16.41 8	24.3	93.70	5 48	17.78 3	31.8	95.01	3 02	18.15 3	36.1	95.80	10 11
16.20 8	10.5	91.29	12 38	15.01 9	18.7	92.74	14 10	16.45 8	24.5	93.74	1 42	15.82 8	31.7	95.02	7 10	14.29 11	36.4	95.84	8 26
14.90 10	11.0	91.35	0 04	16.11 7	19.0	92.77	9 09	17.75 2	24.5	93.74	9 19	16.08 8	31.9	95.04	3 31	16.19 7	36.9	95.91	3 56
15.07 10	11.0	91.36	10 30	18.15 3	19.3	92.82	3 31	16.74 8	24.5	93.75	6 14	16.33 8	31.9	95.05	7 16	17.51 3	37.3	95.98	0 45
17.30 3	11.7	91.49	5 32	17.96 2	19.3	92.83	9 38	16.03 8	24.7	93.76	1 12	16.73 8	31.9	95.05	7 41	14.19 12	37.5	96.05	12 01
16.73 6	11.7	91.49	7 20	14.32 10	19.3	92.84	12 58	17.78 1	25.2	93.86	7 37	17.96 3	32.1	95.06	0 27	18.01 3	38.0	96.11	5 00
16.95 3	12.1	91.53	0 41	17.60* 1	19.6	92.86	4 55	16.56 8	25.3	93.88	7 41	18.17 3	32.2	95.08	4 45	17.97 3	38.0	96.12	7 03
16.27 7	12.1	91.57	11 23	17.42 1	19.9	92.91	4 55	18.14 3	25.5	93.91	7 12	17.88 3	32.3	95.10	2 00	17.33 3	37.9	96.12	10 10
16.58 8	12.4	91.62	13 17	17.83 3	20.0	92.93	3 50	18.00 3	26.0	94.00	0 35	16.18 8	32.5	95.17	14 38	17.53 3	38.5	96.22	10 26
17.75 3	12.5	91.63	11 56	16.41 6	20.0	92.94	1 15	18.00 2	26.0	94.02	13 32	16.94 4	32.6	95.18	10 42	16.69 7	38.9	96.28	11 35
16.43 8	12.6	91.64	9 09	18.08 2	20.0	92.95	7 21	17.83 3	26.2	94.04	2 13	17.58 2	32.9	95.22	9 19	18.45 2	39.2	96.33	10 40

25 prec. $+ 66^{s}.4$, $+ 7' 57'$

201—260				261—320				321—380				381—440				441—457			
Mag.	α 48^{m}	x	$y+10'$	Mag.	α 48^{m}	x	$y+10'$	Mag.	α 49^{m}	x	$y+10'$	Mag.	α 49^{m}	x	$y+10'$	Mag.	α 49^{m}	x	$y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.96 2	39.4	96.36	10 12	15.73 7	49.7	98.18	12 25	17.76 2	0.6	0.11	5 15	16.51 6	12.8	2.27	8 42	15.71 9	24.8	4.37	12 20
16.40 7	39.6	96.40	8 11	16.26 8	49.7	98.19	5 31	16.52 8	0.9	0.16	6 08	17.85 3	13.0	2.30	2 28	16.56 8	25.4	4.46	13 10
17.58 2	39.7	96.42	9 17	15.62 8	50.1	98.25	6 05	17.96 3	1.0	0.18	13 22	16.79 5	13.3	2.35	14 04	17.37 3	25.4	4.49	5 32
16.40 8	40.2	96.50	3 37	16.11 8	50.2	98.27	6 41	18.46 2	1.2	0.21	10 43	18.05 3	13.4	2.37	3 53	18.06 3	25.9	4.57	7 04
14.55 6	40.4	96.54	8 48	17.43 3	50.3	98.29	3 00	16.00 8	2.1	0.36	12 20	17.83 3	13.7	2.41	0 50	17.56 3	26.0	4.59	11 42
16.63 8	40.4	96.55	5 19	11.83w13	50.4	98.31	3 43	18.04 2	2.2	0.39	13 00	17.92 3	13.9	2.45	2 00	17.41 3	26.1	4.60	7 06
18.20 2	40.4	96.55	12 27	16.48 8	50.4	98.32	14 20	15.96 8	2.6	0.47	8 18	16.33 8	13.9	2.45	3 51	14.90 11	26.4	4.66	4 08
16.96 8	40.5	96.57	6 34	15.94 7	50.5	98.34	10 31	15.74 8	2.8	0.50	12 49	14.73 10	14.1	2.48	3 25	17.48 3	26.5	4.66	12 40
16.57 8	40.7	96.59	1 50	18.45 2	50.8	98.39	7 58	16.24 8	2.9	0.51	13 32	18.02 3	14.1	2.49	2 46	18.14 3	26.9	4.75	9 51
13.59 11	40.7	96.59	4 23	15.73 7	51.1	98.43	13 11	17.58 3	2.9	0.52	12 18	14.77 10	14.2	2.50	7 21	15.42 10	27.4	4.84	7 29
18.22 2	40.9	96.63	12 46	18.02 3	51.1	98.43	3 55	17.98 2	3.2	0.56	13 13	16.50 7	14.5	2.57	6 48	18.21 3	27.7	4.88	9 05
17.75 3	40.9	96.63	12 15	18.22 2	51.8	98.55	7 20	17.63 2	3.3	0.59	10 03	17.84 3	14.5	2.57	2 11	16.84 4	27.7	4.89	5 16
17.35 3	41.4	96.72	0 08	17.50 3	52.4	98.66	2 04	16.52 8	3.5	0.61	4 25	16.42 8	15.1	2.66	8 49	15.46 8	27.7	4.90	3 53
17.97 3	41.6	96.75	5 26	16.40 7	52.4	98.67	0 41	17.02 5	4.0	0.70	7 09	17.52 2	15.2	2.69	8 42	17.59 3	28.1	4.95	11 01
16.28 7	42.0	96.82	6 26	17.88 3	52.9	98.75	10 34	16.02 8	4.1	0.73	9 14	18.10 3	15.2	2.69	14 13	18.15 3	28.2	4.96	14 08
13.36 11	42.1	96.84	9 53	16.23 7	53.0	98.77	7 29	16.23 8	4.4	0.79	4 34	17.22 3	15.4	2.72	10 11	15.40 9	28.3	4.98	10 46
15.33 8	42.4	96.90	14 28	16.08 8	53.0	98.77	6 59	17.97 3	4.7	0.83	5 00	17.03 3	15.5	2.74	1 24	17.87 1	28.2	4.99	0 45
17.84 2	42.6	96.93	12 11	17.18 3	53.3	98.81	8 33	10.52w12	4.7	0.83	4 25	17.89 3	15.6	2.76	2 55				
18.15 3	42.8	96.96	2 02	18.50 2	53.6	98.86	10 56	17.26 3	5.2	0.91	2 29	17.38 3	15.8	2.80	4 35				
16.36 7	42.9	96.98	11 28	17.43 2	53.6	98.87	7 50	18.08 2	5.2	0.91	6 16	15.76 9	15.9	2.81	7 02				
14.91 5	42.9	96.99	8 48	18.45 2	53.7	98.89	8 32	16.87 7	5.3	0.93	7 57	14.44 10	16.0	2.82	5 27				
16.38 8	43.1	97.01	1 09	17.54 2	53.8	98.90	9 38	15.98 8	5.5	0.96	1 19	16.72 7	16.1	2.85	8 39				
15.04 8	43.4	97.06	8 53	11.79w12	53.8	98.90	9 15	17.09: 2	5.8	1.03	6 42	18.09 2	16.8	2.96	9 49				
17.66 3	44.1	97.19	4 14	15.89 8	54.0	98.94	6 49	17.76 3	6.0	1.06	9 15	17.64 3	17.1	3.01	5 52				
17.52 3	44.2	97.21	13 05	17.87 3	54.3	99.00	8 25	17.79 2	6.0	1.07	7 54	18.12 2	17.3	3.05	9 25				
16.62 8	44.5	97.26	6 49	17.75 3	54.4	99.01	2 20	17.38 3	6.1	1.08	9 54	16.41 8	17.5	3.10	2 45				
18.40 2	44.7	97.31	10 15	15.94 8	54.5	99.03	13 35	18.08 3	6.4	1.13	2 58	16.19 8	17.8	3.15	2 00				
18.13 2	44.8	97.32	10 33	17.99 3	54.5	99.03	13 42	17.60 2	7.2	1.26	1 11	17.54 3	17.9	3.16	0 44				
16.75 8	44.8	97.32	5 35	16.51 7	54.5	99.03	7 33	16.67 8	7.2	1.27	13 28	15.73 8	18.3	3.23	4 45				
17.26 3	44.8	97.33	14 46	18.40 2	54.9	99.10	8 23	18.16 3	7.3	1.28	3 35	16.40 8	18.3	3.23	2 51				
17.21 3	45.0	97.35	1 22	16.22 8	55.1	99.13	7 34	17.88 2	7.5	1.33	11 39	15.96 9	18.8	3.32	6 10				
18.50 2	45.0	97.36	10 05	17.91 2	55.3	99.16	5 59	15.03 9	8.0	1.42	8 42	17.21 3	18.9	3.35	3 07				
9.24h 1	45.1	97.36	9 40	18.50 2	55.3	99.17	10 16	17.60 3	8.1	1.44	8 03	17.49 3	19.1	3.36	14 56				
17.70 2	45.2	97.38	5 05	17.86 2	55.4	99.18	4 40	18.11 3	8.4	1.47	13 20	16.55 8	19.4	3.43	5 09				
16.54 8	45.3	97.41	2 06	17.47 3	55.5	99.20	13 58	18.31 3	8.5	1.48	13 51	17.37 3	19.5	3.44	12 06				
16.86 7	45.2	97.43	12 22	17.68 2	55.6	99.22	7 20	16.21 8	8.7	1.54	0 23	14.99 11	19.6	3.46	4 28				
17.61 3	45.8	97.50	2 54	17.98 2	55.7	99.24	0 23	18.05 2	8.9	1.56	11 04	17.90 3	19.6	3.47	8 23				
16.43 7	46.0	97.54	3 29	17.49 3	55.7	99.25	0 37	16.68 5	8.9	1.56	2 55	16.65 8	19.7	3.48	8 35				
17.58 3	46.3	97.58	3 25	16.69 8	55.8	99.26	14 15	17.83 3	9.2	1.63	10 51	17.51 3	19.8	3.49	11 35				
16.88 5	46.3	97.58	9 49	18.12 2	55.9	99.29	7 10	17.87 3	9.6	1.70	2 10	18.15 3	19.8	3.50	5 47				
17.15 3	46.4	97.60	12 15	16.53 7	56.2	99.34	8 57	14.96 10	9.8	1.74	7 01	17.39 3	20.0	3.53	1 16				
16.79 8	46.7	97.66	13 09	17.64 2	56.2	99.34	12 45	17.95 3	9.9	1.74	14 42	17.46 3	20.0	3.54	0 07				
17.60 2	46.7	97.67	10 38	14.90 10	56.9	99.45	10 33	18.31 3	10.0	1.75	13 44	17.53 3	20.0	3.54	7 49				
17.23 3	46.8	97.67	2 27	17.18 3	56.9	99.45	7 46	15.57 9	10.0	1.75	14 46	18.12 2	20.2	3.57	9 58				
14.20 9	46.9	97.68	1 44	16.33 8	57.0	99.46	0 41	17.59 3	10.0	1.76	1 51	17.86 3	20.3	3.59	12 50				
14.48 10	46.9	97.68	0 03	18.07 3	57.0	99.46	2 32	16.27 8	10.0	1.76	4 24	17.80 3	20.5	3.63	0 52				
16.82 8	46.9	97.68	6 28	17.72 2	57.5	99.56	8 53	17.34 2	10.4	1.83	11 16	11.12w12	20.7	3.67	2 43				
15.87 8	47.3	97.77	2 25	17.18 3	57.7	99.60	10 03	16.07 8	10.9	1.93	5 09	17.28 3	21.4	3.76	12 53				
18.00 3	47.7	97.83	1 55	17.90 2	58.0	99.65	3 55	17.75 3	10.9	1.93	2 06	17.90 3	21.3	3.77	2 12				
16.31 8	47.9	97.86	0 42	18.18 2	58.1	99.67	7 26	17.66 2	11.0	1.94	7 46	18.09 3	21.5	3.79	14 44				
17.85 2	48.1	97.90	4 52	17.56 2	58.2	99.69	8 07	18.08 2	11.0	1.95	12 17	11.14w12	21.5	3.79	11 49				
18.22 3	48.2	97.92	3 55	17.96 2	58.5	99.74	5 27	17.31 3	11.3	2.00	3 37	16.40 8	21.5	3.80	1 29				
17.54 3	48.3	97.94	0 41	15.75 7	58.8	99.78	10 41	17.27 3	11.4	2.01	8 15	17.23 3	22.9	4.05	1 00				
17.82 2	48.5	97.97	4 10	16.08 8	59.3	99.88	8 40	17.90 3	11.5	2.01	13 14	17.53 3	23.3	4.12	5 06				
17.34 2	48.4	97.97	13 05	15.66 8	59.4	99.90	8 28	16.27 8	11.5	2.02	13 47	16.12 8	23.4	4.13	3 24				
17.69 3	48.7	98.01	2 30	16.56 8	59.4	99.90	3 23	13.57 9	11.7	2.06	1 13	17.24 3	23.4	4.14	3 10				
18.21 2	48.8	98.04	14 27	16.97 3	59.5	99.92	8 42	17.46 3	12.0	2.11	13 19	16.45 8	24.1	4.26	3 49				
13.67 13	49.2	98.10	11 45	18.22 3	59.6	99.93	4 04	15.86 8	12.1	2.14	7 40	17.55 3	24.3	4.29	9 03				
18.29 3	49.4	98.13	13 06	15.63 7	59.9	99.98	8 33	17.21 3	12.6	2.23	3 20	18.03 3	24.4	4.30	14 28				
14.62 10	49.4	98.13	10 33	15.74 8	60.5	0.08	13 15	17.30 3	12.6	2.23	8 14	14.72 11	24.4	4.30	11 21				

25 prec. + $66^{\mathrm{s}}.5$, + 7′ 57″

Area 42. Supplementary Stars

1s—60s					61s—120s					121s—180s					181s—240s					241s—300s				
Mag.		α 47$^{\mathrm{m}}$	x	y+10′	Mag.		α 47$^{\mathrm{m}}$	x	y+10′	Mag.		α 48$^{\mathrm{m}}$	x	y+70′ / y+10′	Mag.		α 48$^{\mathrm{m}}$	x	y+70′ / y+10′	Mag.		α 48$^{\mathrm{m}}$	x	y+70′ / y+10′
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
17.84	2	40	85.9	10.6	16.13	7	53	88.2	15.0	16.86	2	2	89.8	18.2	17.57	2	36	95.8	18.7	16.10	7	53	98.8	17.8
17.71	2	41	86.1	8.2	16.32	7	54	88.3	8.2	17.36	2	3	89.9	3.4	15.94	7	37	95.9	19.5	16.54	4	53	98.8	20.9
17.84	2	41	86.1	9.4	16.00	7	54	88.3	10.4	17.64	2	3	89.9	4.1	16.90	2	37	95.9	20.0	14.15	9	54	98.9	59.7
17.84	2	42	86.2	8.0	17.26	2	54	88.3	14.2	17.92	2	5	90.3	17.7	17.64	2	37	96.0	58.8	18.29	2	54	98.9	16.6
16.19	7	42	86.2	11.3	16.36	7	54	88.3	14.4	17.84	2	8	90.9	17.5	18.05	2	38	96.0	17.8	17.50	2	54	98.9	17.7
17.68	2	43	86.4	12.0	17.22	2	54	88.3	15.7	15.83	7	10	91.2	19.1	16.14	7	39	96.2	0.0	16.06	5	54	98.9	20.6
17.92	2	44	86.6	8.0	16.31	7	55	88.4	2.8	14.59	10	11	91.4	15.6	16.15	7	39	96.3	20.3	15.47	6	55	99.0	59.4
16.23	7	44	86.6	11.7	17.43	2	54	88.4	3.9	17.96	2	12	91.5	15.0	17.58	2	39	96.4	17.6	17.82	2	55	99.0	59.8
16.06	7	44	86.6	12.2	16.26	7	54	88.4	15.6	18.10	2	12	91.5	15.9	14.88	7	40	96.4	20.7	14.67	10	54	99.0	17.4
17.21	2	45	86.7	9.0	17.76	2	55	88.5	6.1	17.86	2	12	91.5	16.5	18.02	2	41	96.6	59.6	17.92	2	54	99.0	20.7
17.84	2	44	86.7	13.7	16.31	7	55	88.5	10.3	14.70	7	13	91.6	16.8	16.59	7	40	96.6	15.8	17.48	2	55	99.1	20.4
16.52	4	46	86.8	5.1	17.50	2	55	88.6	4.3	16.11	7	13	91.7	18.4	16.52	4	41	96.6	20.6	14.86	8	56	99.2	58.8
17.27	2	45	86.8	9.3	18.02	2	55	88.6	5.6	16.53	5	14	91.9	15.4	17.24	2	41	96.7	19.3	15.99	7	55	99.2	20.3
16.20	7	45	86.8	11.9	14.44	10	55	88.6	6.4	17.98	2	15	92.0	18.2	17.64	2	41	96.7	20.3	18.10	2	56	99.4	18.3
16.24	7	46	86.9	8.5	16.61	5	55	88.6	8.0	16.57	4	15	92.1	17.2	15.94	7	42	96.8	17.2	13.19	11	57	99.5	59.4
17.36	2	47	87.0	4.8	16.50	5	55	88.6	10.2	17.12	2	15	92.1	18.6	17.78	2	42	96.8	17.8	18.39	2	57	99.5	16.2
17.92	2	46	87.0	6.5	17.84	2	55	88.6	12.2	16.39	7	16	92.2	18.6	18.29	2	42	96.9	16.4	16.14	7	58	99.6	59.2
16.36	7	46	87.0	8.2	14.94	10	56	88.7	8.6	17.90	2	17	92.4	16.4	17.92	2	43	97.0	59.6	15.88	7	58	99.6	15.9
17.80	2	46	87.0	9.0	17.98	2	57	88.8	5.2	18.29	2	17	92.5	15.5	15.52	8	43	97.0	16.6	15.45	8	58	99.6	18.2
17.84	2	46	87.0	9.4	16.35	7	57	88.8	5.5	18.29	2	18	92.6	15.8	18.02	2	43	97.0	19.3	15.24	7	58	99.6	19.8
16.43	5	46	87.0	10.0	17.02	2	56	88.8	12.6	16.90	2	18	92.7	18.3	17.92	2	43	97.0	20.4	17.12	2	58	99.7	17.6
17.92	2	46	87.0	13.0	14.84	9	56	88.8	14.2	13.89	9	18	92.7	19.6	16.12	7	44	97.2	58.3	18.20	2	58	99.7	17.7
17.59	2	46	87.0	13.5	16.27	7	57	88.9	12.3	18.02	2	20	92.9	18.6	17.86	2	44	97.2	15.3	18.10	2	58	99.7	18.0
16.82	2	47	87.1	6.6	18.11	2	58	89.0	7.4	17.25	2	21	93.0	15.8	18.02	2	44	97.2	15.6	16.11	5	59	99.8	58.7
17.84	2	47	87.1	7.0	16.33	7	57	89.0	16.2	13.64	11	20	93.0	16.4	16.62	7	44	97.2	16.0	15.03	9	59	99.9	17.2
14.82	7	47	87.1	7.5	17.48	2	57	89.0	16.6	14.24	10	20	93.0	20.0	16.20	7	44	97.2	18.7	17.44	2	60	0.0	58.6
16.25	7	47	87.1	8.2	14.79	9	58	89.1	2.9	15.05	9	21	93.1	16.5	17.84	2	44	97.2	20.8	16.35	7	60	0.0	18.6
17.86	2	47	87.1	12.7	17.84	2	58	89.1	5.0	15.82	7	22	93.2	19.2	17.00	2	46	97.4	58.4	16.10	3	61	0.2	58.6
16.42	5	47	87.2	6.1	14.03	10	58	89.1	17.1	18.29	2	22	93.3	16.6	15.83	6	45	97.4	58.6	18.06	2	61	0.2	15.8
17.34	2	47	87.2	7.1	17.62	2	59	89.2	2.3	17.94	2	22	93.4	15.6	17.04	2	45	97.4	58.8	11.30	12	61	0.2	16.6
17.80	2	47	87.2	10.8	16.78	2	59	89.2	2.6	16.16	7	24	93.6	20.2	18.06	2	45	97.4	16.0	18.11	2	61	0.2	17.4
17.52	2	48	87.3	13.5	17.84	2	59	89.2	2.9	17.71	2	24	93.7	59.2	16.25	7	45	97.4	16.9	16.44	7	61	0.2	17.5
17.78	2	48	87.3	14.7	15.80	7	59	89.2	7.3	17.53	2	24	93.7	59.5	17.55	2	45	97.4	18.7	16.56	4	61	0.2	19.4
15.59	6	48	87.4	7.4	18.02	2	58	89.2	9.0	17.04	2	24	93.7	16.3	18.04	2	46	97.5	19.0	16.54	7	62	0.3	16.1
17.86	2	49	87.4	14.2	18.29	2	59	89.2	10.7	14.74	9	24	93.8	15.6	18.29	2	46	97.6	16.9	16.53	7	62	0.3	17.4
17.92	2	48	87.4	14.3	16.02	7	59	89.2	15.2	18.14	2	25	93.8	15.8	17.96	2	46	97.6	17.0	14.85	9	62	0.4	58.8
16.18	7	50	87.6	10.4	16.04	7	58	89.2	16.8	17.52	2	25	93.8	17.0	18.26	2	46	97.6	17.3	17.63	2	63	0.4	59.1
17.35	2	50	87.7	12.1	15.92	7	59	89.2	17.1	16.98	2	25	93.9	58.8	17.88	2	47	97.7	59.0	18.20	2	62	0.4	17.4
17.82	2	50	87.7	15.7	16.79	2	59	89.3	2.4	17.85	2	26	94.0	59.4	14.31	8	47	97.7	0.0	18.14	2	63	0.4	17.6
16.36	7	51	87.8	10.4	16.32	7	59	89.3	6.9	17.84	2	26	94.1	20.0	17.18	2	48	97.8	58.8	16.53	7	63	0.6	15.4
17 26	2	51	87.8	12.3	16.68	4	59	89.3	7.6	17.73	2	27	94.2	59.4	17.01	2	48	97.8	0.0	17.61	2	63	0.6	18.0
15.22	8	51	87.8	12.6	16.47	4	59	89.3	17.6	18.02	2	28	94.4	18.8	16.35	7	48	97.8	15.9	17.52	2	63	0.6	20.4
15.92	7	51	87.8	13.1	18.00	2	60	89.4	12.8	15.09	8	28	94.4	19.4	18.10	2	47	97.8	19.2	16.09	7	64	0.7	20.4
17.84	2	50	87.8	14.3	17.52	2	60	89.4	13.7	15.93	7	29	94.5	59.5	17.50	2	47	97.8	19.4	16.20	7	65	0.8	58.8
17.52	2	51	87.9	5.7	17.34	2	60	89.4	14.7	17.71	2	29	94.6	58.6	18.05	2	48	97.9	18.0	14.92	10	64	0.8	16.0
17.59	2	52	88.0	5.2	15.85	7	60	89.4	16.4	16.98	2	30	94.6	16.0	15.67	7	48	97.9	19.4	17.48	2	64	0.8	16.4
15.71	6	52	88.0	7.1	18.29	2	60	89.5	11.1	16.48	4	29	94.6	20.2	18.10	2	49	98.0	18.2	18.29	2	64	0.8	16.8
17.52	2	52	88.0	7.3	17.92	2	61	89.6	1.2	17.84	2	31	94.8	59.6	17.92	2	49	98.0	20.5	15.88	7	65	0.9	19.2
16.50	5	52	88.0	8.5	15.77	7	61	89.6	1.6	16.41	7	30	94.8	17.2	17.88	2	49	98.2	16.4	16.44	7	65	1.0	15.6
17.90	2	52	88.0	9.2	17.90	2	61	89.6	2.0	16.48	7	30	94.8	17.8	17.59	2	50	98.3	20.2	17.98	2	66	1.0	18.8
17.18	2	52	88.0	13.6	17.01	2	61	89.6	2.5	17.58	2	31	94.9	15.3	17.38	2	51	98.5	15.6	18.29	2	66	1.1	15.3
17.98	2	52	88.0	13.7	18.11	2	61	89.6	6.4	18.02	2	31	94.9	18.8	15.20	9	51	98.5	16.3	16.42	7	66	1.1	16.1
15.99	6	53	88.1	6.3	14.37	10	61	89.6	9.9	17.84	2	32	95.0	59.7	17.92	2	51	98.5	19.6	17.98	2	66	1.1	18.9
16.93	2	53	88.1	7.2	17.30	2	61	89.6	10.2	18.00	2	33	95.2	15.9	17.82	2	52	98.6	59.2	16.32	7	67	1.2	16.9
16.25	7	52	88.1	11.2	15.67	7	61	89.6	10.6	16.54	6	32	95.2	16.8	17.98	2	52	98.6	19.7	17.95	2	67	1.3	18.8
18.02	2	52	88.1	13.4	15.26	8	62	89.7	9.6	17.10	2	32	95.2	17.0	17.92	2	52	98.6	20.3	17.76	2	67	1.3	19.9
17.40	2	53	88.2	4.2	17.46	2	62	89.8	11.0	16.42	7	32	95.2	17.4	17.24	2	53	98.7	59.4	17.04	2	68	1.4	0.0
16.08	7	53	88.2	6.3	16.60	5	62	89.8	12.2	18.29	2	33	95.3	17.4	18.20	2	53	98.7	18.0	17.80	2	69	1.5	16.7
16.17	7	53	88.2	8.1	13.87	9	62	89.8	12.4	16.14	7	34	95.4	15.0	17.80	2	53	98.8	59.8	16.30	7	69	1.6	16.6
17.86	2	53	88.2	14.7	16.01	7	62	89.8	14.2	17.35	2	34	95.6	16.9	18.26	2	53	98.8	16.6	17.86	2	69	1.6	17.8

25 prec. + $66^{\mathrm{s}}.4$, + 7′ 57″

22^{h} Area 42. Supplementary Stars + 44°, + 45°

301s—330s				
Mag.		α 49^{m}	x	$y+70'$ / $y+10'$
		s	′	′
14.11	11	9	1.6	19.3
16.82	2	9	1.6	19.9
17.92	2	10	1.7	18.8
17.77	2	10	1.7	20.0
17.82	2	11	2.0	59.1
17.90	2	12	2.0	59.9
18.29	2	12	2.2	15.0
17.90	2	13	2.2	18.7
16.21	7	12	2.2	18.9
18.08	2	15	2.6	17.1
18.20	2	15	2.7	16.0
17.52	2	15	2.7	17.2
18.20	2	17	3.0	15.1
17.84	2	17	3.0	17.4
17.58	2	17	3.0	19.3
16.41	7	18	3.1	15.8
15.47	7	18	3.2	17.2
16.46	6	19	3.4	15.5
17.46	2	20	3.5	18.7
15.23	8	20	3.6	15.8
17.84	2	20	3.6	19.0
17.76	2	21	3.7	17.6
16.41	7	22	3.9	17.1
16.34	7	22	4.0	16.0
16.13	7	23	4.0	18.7
17.12	2	24	4.3	15.5
17.61	2	25	4.4	18.5
17.78	2	27	4.7	15.7
14.42	11	28	4.9	17.9
17.56	2	29	5.1	4.9

331s—360s				
Mag.		α 49^{m}	x	$y+10'$
		s	′	′
18.05	2	29	5.1	5.4
18.04	2	29	5.2	7.4
17.61	2	30	5.2	10.6
18.10	2	29	5.2	14.2
17.53	2	30	5.3	3.4
16.39	7	30	5.3	3.6
18.05	2	30	5.3	9.3
17.95	2	30	5.3	14.8
15.07	9	31	5.4	7.4
14.35	10	31	5.4	8.8
18.20	2	31	5.4	11.8
15.91	7	30	5.4	17.6
16.82	2	31	5.5	16.4
15.99	7	32	5.6	2.8
16.78	2	32	5.6	3.6
17.82	2	32	5.6	4.9
17.55	2	32	5.6	9.4
17.22	2	32	5.6	16.6
16.11	7	32	5.7	4.4
18.10	2	32	5.7	11.9
14.88	10	32	5.7	13.6
16.30	7	33	5.8	2.0
15.71	7	33	5.8	3.6
15.05	9	33	5.8	10.5
15.23	9	33	5.8	10.7
17.74	2	33	5.8	11.7
17.90	2	33	5.8	12.6
16.94	2	33	5.8	13.4
16.43	7	33	5.8	14.6
16.47	7	33	5.9	6.4

361s—390s				
Mag.		α 49^{m}	x	$y+10'$
		s	′	′
16.11	7	34	5.9	14.0
16.86	2	34	6.0	4.8
16.87	2	34	6.0	9.9
16.07	7	34	6.0	10.0
16.28	7	34	6.0	12.9
18.02	2	34	6.0	13.0
17.92	2	35	6.1	2.7
17.22	2	35	6.1	6.5
17.95	2	35	6.1	14.0
17.61	2	35	6.2	3.4
18.08	2	35	6.2	9.6
15.98	7	35	6.2	10.2
16.44	7	35	6.2	13.8
14.83	10	35	6.2	15.2
17.45	2	35	6.2	15.4
16.80	2	35	6.2	16.0
16.20	7	35	6.2	17.0
17.84	2	36	6.3	3.5
17.58	2	36	6.3	11.8
18.04	2	36	6.3	12.1
16.13	7	36	6.4	3.0
17.55	2	36	6.4	10.1
17.98	2	36	6.4	11.6
16.23	6	36	6.4	13.8
17.09	2	37	6.5	3.7
17.42	2	37	6.5	5.3
17.66	2	37	6.6	3.6
17.73	2	37	6.6	5.4
17.32	2	37	6.6	5.8
17.58	2	37	6.6	11.1

391s—420s				
Mag.		α 49^{m}	x	$y+10'$
		s	′	′
16.42	7	37	6.6	11.6
16.37	7	38	6.6	15.9
16.99	2	39	6.8	5.2
17.06	2	38	6.8	8.2
16.88	2	39	6.8	9.0
17.98	2	39	6.8	12.4
17.80	2	39	6.9	5.5
16.01	7	39	6.9	7.6
17.72	2	39	6.9	14.8
17.92	2	39	6.9	15.1
16.10	7	40	7.0	4.6
15.47	8	40	7.0	7.7
17.98	2	40	7.0	11.3
14.41	8	41	7.2	8.4
17.88	2	41	7.2	11.5
16.25	5	41	7.2	12.8
17.02	2	41	7.2	13.0
17.86	2	41	7.2	14.7
11.14	10	42	7.4	9.6
15.99	7	42	7.4	10.8
17.46	2	42	7.4	13.4
17.06	2	43	7.5	9.2
17.80	2	43	7.5	11.2
17.84	2	43	7.5	15.2
17.17	2	43	7.6	6.1
17.68	2	43	7.6	8.9
17.92	2	43	7.6	12.8
14.42	10	43	7.6	13.2
17.92	2	43	7.6	13.9
17.90	2	44	7.7	6.3

421s—433s				
Mag.		α 49^{m}	x	$y+10'$
		s	′	′
17.66	2	44	7.8	7.9
17.82	2	45	7.8	8.2
14.61	9	44	7.8	8.6
17.71	2	44	7.8	14.3
15.85	7	45	7.9	5.1
15.92	7	46	8.0	9.3
17.86	2	45	8.0	10.1
16.06	7	46	8.2	6.0
16.84	2	46	8.2	12.2
14.52	8	47	8.2	13.3
16.23	5	47	8.3	12.0
16.10	7	48	8.4	11.3
17.90	2	48	8.5	10.6

25 prec. + $66^{\mathrm{s}}.5$, + 7′ 57″

23^{h} Area 43. Center for 1900: $23^{\mathrm{h}}\ 50^{\mathrm{m}}$ + 44° 50′ (15′ × 15′) + 44°

1—20				
Mag.		α 49^{m}	x	$y+50'$
		s	′	′ ″
13.72	15	12.4	91.56	45 13
18.17	3	12.4	91.57	53 30
16.58	8	13.0	91.66	53 26
16.26	8	13.6	91.76	48 27
14.15	13	13.8	91.80	51 38
16.04	8	13.9	91.82	54 56
14.54	12	14.0	91.84	51 48
16.83	6	14.4	91.91	53 23
18.06	3	14.7	91.99	57 47
17.69	3	14.8	92.00	58 38
17.68	3	14.9	92.00	46 07
16.14	8	15.5	92.13	57 12
17.96	3	16.2	92.25	59 02
16.52	8	16.8	92.34	45 17
17.65	3	16.8	92.35	55 36
14.99	12	17.7	92.50	45 35
18.10	3	17.9	92.55	57 21
17.87	3	18.3	92.61	53 03
17.05	4	18.5	92.65	50 46
18.11	3	18.8	92.70	55 42

21—40				
Mag.		α 49^{m}	x	$y+50'$
		s	′	′ ″
17.25	3	19.1	92.75	53 01
16.60	8	19.3	92.80	58 06
17.81	3	19.4	92.82	56 43
16.66	6	19.4	92.82	58 56
16.33	8	19.7	92.86	58 21
17.53	3	20.2	92.95	58 37
14.55	13	20.4	92.98	47 35
17.45	1	20.4	93.00	59 53
18.12	3	21.2	93.14	56 37
18.29	3	21.3	93.15	48 59
18.16	3	21.8	93.23	48 01
18.00	3	21.7	93.23	57 59
17.74	3	21.9	93.25	50 02
15.97	9	22.3	93.33	55 42
14.26	14	22.5	93.37	56 07
18.20	2	22.7	93.39	47 34
16.19	9	22.7	93.40	55 02
15.58	9	23.5	93.54	58 49
17.88	3	23.6	93.55	54 53
18.09	3	23.7	93.56	54 44

41—60				
Mag.		α 49^{m}	x	$y+50'$
		s	′	′ ″
16.73	8	23.7	93.57	52 49
16.90	4	24.1	93.65	56 10
17.28	3	24.3	93.69	56 50
16.00	9	25.2	93.85	57 12
17.11	4	25.4	93.87	52 00
18.28	3	25.7	93.92	51 30
16.56	8	26.6	94.09	46 58
17.68	3	26.7	94.10	49 33
17.82	3	26.8	94.11	52 33
17.79	3	27.2	94.18	53 14
16.18	8	27.7	94.26	46 11
16.70	8	27.7	94.27	52 35
17.65	3	28.0	94.32	53 50
16.56	6	28.1	94.35	59 33
15.60	9	28.3	94.39	58 02
16.69	8	28.7	94.45	54 34
16.82	4	28.9	94.50	57 20
16.88	6	29.2	94.54	48 01
15.43	9	29.4	94.58	53 21
17.87	3	29.9	94.67	59 05

61—80				
Mag.		α 49^{m}	x	$y+50'$
		s	′	′ ″
16.77	8	30.7	94.81	50 51
15.46	10	31.0	94.87	47 27
16.10	8	31.2	94.91	59 05
18.22	3	31.7	94.98	54 18
15.05	12	32.5	95.13	50 13
17.98	3	32.7	95.16	53 46
14.28	14	32.9	95.20	45 48
17.03	5	33.1	95.24	49 54
14.30	14	33.2	95.25	50 22
18.39	3	33.4	95.29	49 48
17.36	3	34.1	95.40	53 40
16.33	8	34.3	95.45	53 35
18.08	3	34.5	95.49	50 56
16.14	8	34.5	95.49	56 06
18.05	3	35.0	95.56	46 48
15.06	11	35.0	95.58	57 53
15.06	11	35.5	95.66	57 51
16.35	8	35.5	95.66	45 36
17.97	3	35.6	95.69	56 14
17.74	3	35.8	95.72	52 27

81—100				
Mag.		α 49^{m}	x	$y+50'$
		s	′	′ ″
17.47	3	35.9	95.74	49 35
18.12	3	36.8	95.90	55 41
16.58	8	37.3	95.98	59 47
13.19	18	37.6	96.04	49 23
17.44	2	38.1	96.11	49 26
17.34	3	38.8	96.25	54 00
17.41	3	38.8	96.25	53 33
17.60	3	39.0	96.28	54 29
17.90	3	39.1	96.30	45 11
17.68	3	39.3	96.34	57 39
18.44	2	39.4	96.35	47 41
17.63	3	39.5	96.36	57 19
12.11	17	39.7	96.40	49 57
17.80	3	39.7	96.41	57 02
15.39	10	39.9	96.43	50 34
17.94	3	40.1	96.47	46 45
16.54	8	40.5	96.55	59 46
17.12	4	41.4	96.70	51 14
14.98	12	42.1	96.84	57 56
13.76	15	42.3	96.87	48 04

25 prec. + $75^{\mathrm{s}}.2$, + 8′ 21″

101—160				161—220				221—280				281—303			
Mag.	α 49^m	x	y+50′	Mag.	α 50^m	x	y+50′	Mag.	α 50^m	x	y+50′	Mag.	α 50^m	x	y+50′
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
18.02 3	42.3	96.87	45 18	17.99 2	2.3	0.40	52 27	16.86 4	17.2	3.05	59 20	18.13 1	31.5	5.59	59 51
18.12 3	42.5	96.91	55 50	16.47 6	3.2	0.56	50 52	17.38 3	17.3	3.06	49 25	16.18 9	31.6	5.61	50 44
17.65 3	43.1	97.01	59 43	15.51 8	3.3	0.58	51 21	16.95 5	17.4	3.08	47 26	14.13 13	31.7	5.62	57 52
18.49 3	43.3	97.04	53 11	16.13 9	3.2	0.58	48 32	16.46 8	17.7	3.14	58 30	14.82 12	32.2	5.71	45 11
16.47 8	44.1	97.18	58 07	17.34 3	3.3	0.58	58 13	17.74 3	17.7	3.15	52 47	17.62 3	32.2	5.71	53 01
17.44 3	44.3	97.23	57 15	18.63 2	3.8	0.69	50 05	17.54 3	18.2	3.23	58 09	17.90 3	32.8	5.82	47 43
16.76 8	45.0	97.35	53 54	17.86 3	4.3	0.76	45 09	17.43 3	18.4	3.27	53 41	13.89 14	32.9	5.84	54 33
18.50 2	45.0	97.35	50 53	18.52 2	4.3	0.77	51 43	14.20 14	18.7	3.31	49 05	18.06 3	33.0	5.85	57 10
18.28 3	45.1	97.37	52 58	17.94 3	4.4	0.79	49 11	16.92 5	18.8	3.33	49 33	12.91 18	33.1	5.87	47 11
15.89 9	45.6	97.45	53 05	17.43 3	4.8	0.85	49 33	18.42 1	20.1	3.57	47 30	17.92 3	33.1	5.87	50 09
15.72 9	45.6	97.45	50 36	17.90 3	4.9	0.86	49 09	18.39 3	20.2	3.59	47 01	16.87 1	33.3	5.90	59 29
17.94 3	45.7	97.46	58 49	16.88 7	5.2	0.92	52 27	14.06 14	20.4	3.62	45 51	16.49 8	33.5	5.95	49 47
18.24 3	45.8	97.49	56 26	16.81 8	5.6	0.98	56 46	14.98 12	21.2	3.76	53 01	16.10 8	33.5	5.95	46 55
17.00 4	46.5	97.61	51 26	16.77 8	6.5	1.15	48 30	17.40 3	21.2	3.77	54 21	15.92 9	33.7	5.96	55 28
17.74 3	46.7	97.65	48 34	16.43 8	6.5	1.15	55 24	15.15 11	21.3	3.79	48 34	15.43 9	33.7	5.97	56 54
16.86 6	47.1	97.71	49 57	15.20 12	6.6	1.16	50 55	16.93 6	21.4	3.80	50 33	17.36 1	34.3	6.06	59 32
14.75 13	47.1	97.71	58 49	17.90 3	6.7	1.18	59 02	17.81 3	21.8	3.86	47 34	14.67 12	34.8	6.16	56 46
12.92 17	47.1	97.72	51 55	17.72 3	6.8	1.21	56 47	18.42 1	21.9	3.89	54 03	17.73 3	36.0	6.36	57 29
18.04 3	47.2	97.73	58 44	17.40 3	6.9	1.22	49 33	12.89 16	22.0	3.90	49 19	16.68 8	35.9	6.36	49 59
18.26 2	47.4	97.77	50 03	17.58 3	7.1	1.26	59 32	18.35 3	22.4	3.96	53 41	17.98 3	36.3	6.44	52 19
17.94 3	47.5	97.79	56 51	17.03 7	7.3	1.30	53 42	18.52 1	22.6	4.00	52 24	18.08 3	36.4	6.45	49 30
18.15 3	48.5	97.96	58 19	18.32 2	7.4	1.31	57 02	17.88 3	22.6	4.01	45 56	17.57 3	36.5	6.46	57 28
16.50 8	48.8	98.01	55 19	16.37 8	7.8	1.38	46 18	15.62 9	22.8	4.04	46 54	17.74 3	36.6	6.48	51 16
17.84 3	49.1	98.06	56 19	17.81 3	8.4	1.48	54 51	17.47 3	23.2	4.11	51 37				
18.33 2	49.3	98.11	50 44	18.46 2	8.4	1.48	52 47	18.08 3	23.4	4.15	53 24				
18.08 3	50.0	98.24	52 06	18.36 3	8.4	1.49	53 51	18.23 3	24.2	4.28	52 50				
16.72 8	50.5	98.31	52 51	17.78 3	8.9	1.58	52 47	18.38 2	24.3	4.31	46 00				
16.30 8	50.8	98.37	56 16	18.20 2	8.9	1.59	55 17	17.44 3	24.6	4.35	57 49				
14.90 8	51.1	98.43	57 12	15.98 9	9.2	1.63	56 34	17.80 3	24.9	4.41	59 25				
17.59 3	51.3	98.46	46 33	17.74 3	9.4	1.66	46 30	18.19 3	25.5	4.53	47 33				
15.73 9	51.9	98.56	48 10	16.75 5	9.8	1.74	59 57	13.41 16	25.8	4.56	56 07				
18.14 3	52.0	98.58	56 09	17.21 3	10.1	1.79	58 25	18.22 3	25.9	4.60	45 38				
15.88 9	52.2	98.62	46 40	17.77 3	10.4	1.84	53 27	15.93 9	26.2	4.65	45 12				
16.51 8	52.3	98.64	57 50	18.12 3	10.5	1.87	49 09	14.64 12	26.3	4.67	51 02				
17.93 3	52.5	98.67	55 40	14.35 14	10.6	1.88	51 02	16.48 8	26.5	4.70	46 56				
18.64 2	53.5	98.85	47 27	18.06 2	10.6	1.89	48 39	17.98 3	26.6	4.71	47 56				
18.09 3	53.6	98.86	57 55	17.98 3	10.9	1.93	57 55	14.67 13	26.6	4.71	56 36				
18.08 3	53.6	98.87	47 44	18.02 3	11.2	1.99	54 34	15.86 9	26.9	4.76	55 54				
16.76 8	53.7	98.88	54 04	15.66 10	11.5	2.04	51 36	17.62 3	27.6	4.89	55 45				
13.39 18	53.7	98.88	55 27	17.30 3	11.6	2.07	45 10	18.04 3	27.7	4.90	56 33				
17.64 3	53.8	98.90	45 48	16.83 7	11.7	2.07	56 12	15.73 9	27.9	4.94	59 25				
17.99 2	54.2	98.97	47 24	17.81 3	11.9	2.11	57 36	18.20 3	28.3	5.00	56 22				
14.84 12	54.3	99.00	58 56	17.96 3	12.7	2.25	48 45	18.02 3	28.5	5.05	52 16				
17.62 3	54.6	99.04	49 56	12.95 17	13.1	2.32	48 07	13.59 15	28.6	5.06	58 44				
10.10w 12	**54.6**	**99.05**	**50 13**	17.94 3	13.2	2.35	49 09	17.77 3	28.9	5.12	52 21				
14.05 13	55.3	99.16	53 19	18.16 3	13.2	2.35	45 46	17.76 3	28.9	5.12	59 17				
16.70 8	55.7	99.24	58 04	16.42 8	13.4	2.36	57 28	17.49 3	29.1	5.15	56 31				
13.75 15	56.1	99.30	47 35	17.49 3	13.4	2.36	56 54	17.00 2	29.3	5.20	45 09				
17.03 7	57.0	99.46	49 51	15.13 11	13.8	2.44	59 14	17.45 1	29.4	5.21	59 52				
17.96 3	57.0	99.47	46 53	18.21 3	14.3	2.54	51 30	17.94 3	29.5	5.22	55 22				
15.13 12	58.4	99.71	47 12	16.05 9	14.5	2.57	50 56	17.55 3	29.5	5.23	55 15				
16.70 8	59.0	99.83	54 50	16.00 9	14.5	2.57	56 04	17.74 3	29.6	5.25	49 11				
17.82 3	59.5	99.92	57 59	18.42 2	14.8	2.63	54 06	17.26 1	29.7	5.26	59 59				
15.21 11	60.6	0.10	55 03	16.88 6	15.1	2.66	56 46	15.15 10	30.3	5.37	48 51				
16.52 8	60.6	0.11	49 10	16.17 9	15.1	2.69	51 20	18.06 2	30.4	5.38	59 33				
18.46 2	60.9	0.16	49 39	13.72 15	15.6	2.77	46 29	18.19 3	30.4	5.39	46 00				
14.82 13	61.2	0.21	52 07	17.57 3	15.6	2.77	58 36	17.67 3	30.7	5.45	48 12				
16.60 8	61.2	0.22	51 09	17.86 3	16.4	2.90	57 26	17.10 4	31.0	5.50	50 30				
18.34 3	61.2	0.22	46 45	15.39 9	16.7	2.97	45 29	17.05 4	31.0	5.50	52 38				
17.50 3	61.4	0.25	55 54	16.75 6	17.0	3.00	57 40	17.93 3	31.1	5.51	58 39				

25 prec. + 75ˢ.3, + 8′ 21″

1s—60s				
Mag.		α 48^{m}	x	$y+50'$
		s	′	′
15.38	7	52	88.0	47.7
17.87	2	53	88.1	50.3
14.01	12	53	88.2	47.3
17.29	2	54	88.4	51.0
17.95	2	56	88.6	50.1
16.57	5	56	88.7	48.6
16.88	3	56	88.7	49.0
17.69	2	56	88.7	51.3
16.87	3	57	88.8	48.5
16.97	2	56	88.8	52.8
17.00	3	59	89.1	48.4
13.56	16	60	89.3	45.7
14.21	12	60	89.4	53.4
16.86	3	61	89.5	47.1
17.99	2	61	89.5	52.4
15.66	7	61	89.6	50.7
16.44	7	62	89.6	52.8
16.45	7	62	89.7	47.7
13.75	12	62	89.7	54.1
17.85	2	62	89.8	48.5
17.97	2	62	89.8	55.6
16.58	5	63	89.9	49.4
15.64	7	64	90.1	47.6
14.15	12	65	90.2	46.0
16.75	3	64	90.2	49.4
14.34	12	65	90.2	50.1
14.11	12	64	90.2	56.3
16.78	3	65	90.2	57.3
17.25	2	65	90.3	50.7
16.63	7	65	90.3	53.3
16.44	7	65	90.3	53.8
16.32	7	65	90.3	54.6
14.33	12	65	90.3	57.6
18.06	2	66	90.4	48.3
16.10	7	67	90.6	42.6
17.58	2	67	90.6	47.6
17.86	2	67	90.6	52.1
16.79	3	67	90.7	54.0
14.55	11	67	90.7	55.7
16.89	3	68	90.8	49.4
10.12	14	69	90.9	48.0
16.52	7	69	90.9	48.2
16.99	3	69	90.9	48.3
12.29	15	70	91.2	43.7
17.87	2	70	91.2	57.6
17.63	2	71	91.3	45.0
17.42	2	71	91.4	44.6
16.25	7	72	91.4	44.8
18.19	2	72	91.4	50.3
15.64	7	71	91.4	54.6
17.99	2	71	91.4	57.8
14.90	10	71	91.4	58.2
16.23	7	72	91.5	52.5
16.82	3	73	91.6	42.4
15.93	7	74	91.8	44.4
18.11	2	74	91.8	45.0
17.91	2	74	91.9	43.6
17.15	2	74	91.9	43.8
18.03	2	75	92.1	44.3
16.82	3	77	92.3	41.3

61s—120s				
Mag.		α 49^{m}	x	$\dfrac{y+50'}{y-10'}$
		s	′	′
17.97	2	17	92.3	41.8
16.16	7	18	92.5	43.6
18.09	2	19	92.7	44.2
15.84	7	19	92.8	42.8
17.71	2	20	92.9	41.1
11.25	14	20	92.9	44.8
17.85	2	20	93.0	42.7
18.09	2	21	93.1	42.8
17.47	2	21	93.2	40.9
16.43	7	22	93.2	44.6
16.06	7	23	93.5	40.4
17.41	2	24	93.6	40.9
17.33	2	24	93.6	42.3
16.55	7	25	93.8	44.2
16.36	7	26	93.9	42.2
17.87	2	26	93.9	42.3
18.12	2	26	93.9	44.4
17.94	2	26	94.0	40.3
17.84	2	27	94.1	41.2
17.97	2	27	94.2	41.7
14.97	8	27	94.2	44.9
16.53	3	28	94.3	42.0
18.03	2	30	94.6	41.4
15.07	9	29	94.6	0.3
18.14	2	30	94.8	43.2
17.89	2	32	95.1	44.1
16.00	7	33	95.2	40.4
17.95	2	34	95.3	40.3
17.00	2	35	95.5	0.7
18.25	2	36	95.6	44.8
17.09	2	36	95.7	1.2
16.65	5	36	95.8	40.1
17.99	2	36	95.8	0.6
16.46	7	37	95.9	40.1
16.66	3	37	95.9	40.2
17.35	2	39	96.2	39.8
18.09	2	39	96.3	41.8
13.37	16	39	96.3	43.4
15.97	7	39	96.3	0.5
17.36	2	39	96.3	1.0
16.42	7	40	96.4	39.8
14.51	11	41	96.6	41.3
16.91	3	41	96.7	39.4
16.46	7	41	96.7	40.3
17.97	2	41	96.7	42.4
17.12	2	42	96.8	39.5
16.10	7	42	96.8	42.0
17.31	2	43	96.9	42.3
16.89	3	43	97.0	42.1
17.73	2	44	97.1	41.6
16.86	5	44	97.1	44.4
15.65	7	45	97.3	40.6
16.51	7	46	97.5	44.1
16.65	7	46	97.6	42.5
16.41	7	46	97.6	0.4
17.97	2	46	97.6	1.7
15.92	6	47	97.7	43.0
18.09	2	48	97.8	41.3
16.14	7	47	97.8	45.0
14.99	10	48	97.9	39.5

121s—180s				
Mag.		α 49^{m}	x	$\dfrac{y+50'}{y-10'}$
		s	′	′
15.23	8	50	98.2	43.0
13.32	16	50	98.2	44.0
17.94	2	51	98.4	40.6
17.59	2	51	98.4	42.9
18.01	2	52	98.5	44.7
16.75	7	52	98.6	45.0
16.92	3	53	98.7	41.7
18.10	2	53	98.7	43.0
16.58	7	53	98.7	44.2
17.84	2	53	98.7	1.1
17.85	2	53	98.8	40.2
18.25	2	53	98.8	44.6
17.83	2	55	99.2	1.5
17.73	2	56	99.3	43.8
16.57	7	57	99.6	43.1
16.55	7	58	99.7	41.2
16.35	7	58	99.7	43.0
16.66	5	59	99.9	40.2
17.99	2	61	0.1	39.5
15.34	7	61	0.1	45.0
17.81	2	61	0.2	39.8
16.67	7	61	0.2	43.4
17.97	2	62	0.4	41.5
16.39	7	63	0.5	40.6
17.99	2	63	0.5	42.3
17.93	2	63	0.6	40.1
17.55	2	64	0.7	43.6
16.11	7	64	0.7	44.5
14.87	10	65	0.8	44.1
12.59	12	66	1.0	40.8
14.51	11	66	1.0	42.4
17.97	2	66	1.0	0.5
16.68	6	66	1.1	44.6
15.59	7	66	1.2	39.2
15.67	7	67	1.2	41.0
17.69	2	67	1.2	1.0
18.25	2	67	1.3	44.9
17.70	2	68	1.5	42.0
17.45	2	69	1.6	43.0
17.79	2	69	1.6	0.4
16.51	7	70	1.7	42.4
18.27	2	70	1.7	44.6
16.86	3	70	1.8	41.1
15.16	8	71	2.0	41.4
15.64	7	72	2.2	39.8
17.13	2	73	2.3	40.2
17.14	2	74	2.4	42.4
15.79	7	74	2.5	43.0
16.95	3	74	2.5	43.6
16.27	7	76	2.8	41.6
13.91	11	76	2.8	42.7
17.51	2	76	2.9	39.9
16.84	3	76	2.9	41.8
16.86	3	77	3.0	40.7
17.97	2	77	3.1	41.1
17.99	2	78	3.2	42.5
16.59	7	79	3.3	42.8
14.22	12	80	3.6	0.6
17.27	2	81	3.8	40.3
17.27	2	81	3.8	44.4

181s—240s				
Mag.		α 50^{m}	x	$\dfrac{y+50'}{y-10'}$
		s	′	′
16.15	7	21	3.8	0.1
16.33	7	22	3.9	41.8
12.72	13	22	3.9	43.3
17.75	2	23	4.1	41.0
17.16	2	23	4.1	41.4
17.11	2	24	4.3	43.9
17.95	2	25	4.5	42.2
17.95	2	26	4.6	41.1
18.09	2	26	4.6	44.9
16.06	7	28	4.9	41.5
17.83	2	28	5.0	43.1
16.39	7	30	5.4	41.2
18.03	2	32	5.6	43.0
17.92	2	32	5.6	44.0
17.05	2	32	5.8	41.4
15.30	7	33	5.8	43.7
18.01	2	33	5.9	44.5
14.22	12	37	6.6	45.0
14.99	10	37	6.6	58.0
16.54	7	38	6.8	45.5
17.71	2	38	6.8	56.4
16.75	3	39	6.9	45.1
16.69	7	39	6.9	50.6
18.04	2	39	6.9	51.4
18.02	2	39	6.9	52.6
15.82	7	40	7.0	43.2
15.96	7	40	7.0	57.2
17.27	2	40	7.1	48.5
15.85	7	40	7.1	53.4
17.20	2	41	7.2	45.6
15.54	7	41	7.2	51.4
18.03	2	41	7.2	52.0
11.39	14	41	7.2	52.9
17.50	2	41	7.3	45.3
18.04	2	41	7.3	47.6
15.82	7	41	7.3	47.8
16.52	7	41	7.3	54.0
17.83	2	41	7.3	56.4
16.48	7	42	7.5	47.0
16.90	3	42	7.5	54.3
16.49	7	42	7.5	55.8
17.75	2	42	7.5	57.7
16.30	7	43	7.7	45.3
17.75	2	44	7.8	44.1
17.95	2	44	7.8	49.9
18.09	2	45	7.9	51.0
15.07	9	45	7.9	53.4
14.08	12	45	7.9	56.4
17.97	2	46	8.1	44.6
16.18	7	46	8.1	51.1
18.11	2	47	8.3	51.2
17.94	2	47	8.3	52.3
16.09	6	47	8.3	53.3
16.25	7	47	8.3	54.3
17.95	2	47	8.3	55.6
15.78	7	48	8.5	50.0
16.47	5	49	8.6	44.0
17.28	2	49	8.6	53.4
16.38	7	49	8.6	55.4
16.34	7	49	8.7	52.0

241s—261s				
Mag.		α 50^{m}	x	$y+50'$
		s	′	′
17.99	2	49	8.8	52.4
17.55	2	50	8.8	56.2
16.51	5	50	9.0	49.8
17.73	2	51	9.0	55.1
17.78	2	51	9.0	55.3
16.84	3	51	9.1	45.8
17.77	2	51	9.1	54.2
17.79	2	51	9.1	54.3
17.01	2	52	9.3	48.8
15.34	7	54	9.5	54.1
17.97	2	54	9.6	52.7
17.83	2	55	9.7	46.4
17.99	2	55	9.7	52.1
16.66	5	55	9.7	52.6
17.73	2	55	9.8	46.3
16.32	7	55	9.8	51.4
17.83	2	56	9.9	47.7
15.38	7	56	10.0	50.8
17.97	2	57	10.1	50.4
16.56	5	59	10.4	49.9
17.93	2	59	10.4	52.1

25 prec. + $75^{\mathrm{s}}.2$, + 8′ 21″

0^{h} Area 44. Center for 1900: $0^{h}\ 24^{m}$ + 30° 10′ (15′ × 15′) + 30°

1—30				31—60				61—90				91—120			
Mag.	α 23^{m}	x	$y+10'$	Mag.	α 23^{m}	x	$y+10'$	Mag.	α 23^{m}	x	$y+10'$	Mag.	α 24^{m}	x	$y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.78 3	32.9	94.15	14 45	16.70 5	45.9	96.96	5 21	16.79 7	59.2	99.83	11 29	15.88 9	23.8	5.15	10 35
15.11 10	32.9	94.15	17 16	18.02 3	46.0	96.99	15 34	17.12 6	60.9	0.20	11 19	16.43 8	23.8	5.16	8 13
16.41 8	33.4	94.26	17 34	18.09 3	48.2	97.46	10 39	16.58 8	61.0	0.23	6 57	13.76 16	24.7	5.35	6 23
17.86 3	36.0	94.82	19 01	17.15 3	48.9	97.60	12 30	18.11 3	62.8	0.60	14 04	10.82w 11	26.0	5.62	5 30
17.00 5	36.2	94.84	9 28	18.48 2	48.9	97.60	10 48	14.70 14	62.9	0.62	19 12	14.68 12	26.2	5.69	7 26
17.84w 2	37	95.0	5 48	17.58 3	49.6	97.76	15 12	17.50 3	63.0	0.64	18 18	15.92 9	27.8	6.01	16 30
14.18 14	37.4	95.13	15 26	15.11 11	49.6	97.78	16 55	18.12 3	63.9	0.85	18 40	17.82 3	28.2	6.11	6 54
14.29 14	37.6	95.15	5 10	18.10 3	50.6	97.99	15 42	16.94 3	64.5	0.97	16 17	14.78 11	28.4	6.15	9 38
15.27 10	38.8	95.43	9 59	18.32 3	50.8	98.03	14 14	17.38 3	65.7	1.23	19 34	17.15 3	29.4	6.35	19 50
15.24 11	38.8	95.44	14 11	17.82 3	50.9	98.05	17 08	8.96w 8	65.9	1.27	10 52	18.00 3	29.5	6.38	8 05
17.86 3	38.9	95.44	6 42	13.88 16	51.3	98.12	16 43	15.70 9	66.5	1.37	5 44	16.52 9	30.3	6.55	16 58
17.41 3	38.9	95.45	17 12	18.28 2	51.8	98.22	10 46	15.41 10	69.9	2.14	15 43	18.28 3	30.5	6.58	13 16
15.94 9	39.0	95.47	13 29	16.06 8	51.8	98.23	15 39	17.42 3	70.0	2.17	13 36	15.74 9	32.9	7.10	10 22
17.00 5	40.1	95.71	13 25	18.23 1	51.9	98.24	15 17	18.04 3	70.5	2.27	17 36	15.37 11	33.5	7.24	9 53
17.75 3	41.0	95.90	17 42	12.75 14	51.9	98.26	18 17	18.22 2	70.9	2.36	5 37	18.31 2	33.5	7.25	13 57
13.45 15	41.1	95.91	7 57	16.33 8	52.1	98.30	8 32	17.46 2	71.1	2.40	19 16	16.71 5	33.8	7.31	18 35
16.08 9	41.5	95.99	8 52	16.38 9	52.3	98.34	8 08	14.69 14	73.4	2.90	17 01	16.72 7	33.9	7.32	17 11
12.32 15	41.5	95.99	7 02	18.30 2	52.8	98.44	17 43	17.62 3	73.8	2.99	12 10	17.81 3	34.2	7.38	17 55
18.33 2	41.7	96.08	13 10	15.04 8	53.6	98.63	7 22	17.73 3	73.8	2.99	9 00	15.13 11	34.7	7.50	12 46
16.91 3	41.9	96.11	17 56	15.13 12	53.7	98.65	19 44	17.92 1	74.4	3.11	15 48	18.02 3	35.1	7.60	6 41
14.69 14	42.5	96.22	5 47	17.58 3	53.7	98.65	14 19	18.17 3	78.3	3.96	17 24	16.58 8	36.1	7.83	7 09
17.87 3	43.6	96.46	19 45	14.69 12	54.3	98.77	10 37	18.00 3	79.9	4.30	6 03	14.40 13	36.4	7.88	9 12
18.36 2	44.1	96.57	10 51	17.10 3	54.4	98.79	8 27	15.28 10	80.3	4.39	8 15	16.71 7	37.8	8.16	18 42
15.67 8	44.5	96.68	10 13	17.60 3	54.4	98.81	11 13	16.72 5	80.8	4.50	7 02	17.76 3	37.8	8.18	9 46
16.75 8	44.8	96.71	9 03	14.57 14	54.7	98.85	6 48	17.25 3	81.0	4.55	18 49	11.50 14	38.8	8.38	15 04
14.69 14	45.2	96.81	6 02	16.41 8	55.6	99.07	6 42	16.59 9	82.2	4.81	17 22	17.03 3	39.6	8.56	19 20
17.50 3	45.4	96.86	19 21	17.72 3	56.1	99.17	7 27	17.90 3	83.1	5.01	5 41	17.88 2	39.7	8.59	19 12
16.73 3	45.5	96.87	16 12	14.18 14	56.9	99.32	12 07	17.92 1	83.3	5.02	10 06	17.41 3	40.3	8.72	13 47
17.50 3	45.7	96.93	16 49	17.40 3	57.2	99.40	17 22	17.76 3	83.5	5.09	8 33	11.90 14	40.8	8.82	14 06
17.46 3	45.8	96.95	13 58	16.68 8	57.5	99.46	7 25	14.27 14	83.6	5.11	11 14	17.92 1	41.2	8.91	19 50

25 prec. + $78^{s}.8$, + 8′ 18″

0^{h} Area 44. Supplementary Stars + 29°, + 30°

1s—20s				21s—40s				41s—60s				61s—80s				81s—85s			
Mag.	α 23^{m}	x	$y+10'$	Mag.	α 23^{m}	x	$y+10'$	Mag.	α 23^{m}	x	$\frac{y+70'}{y+10'}$	Mag.	α 24^{m}	x	$y+10'$	Mag.	α 24^{m}	x	$y+10'$
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
16.72 4	13	89.9	13.1	15.48 7	28	93.0	7.9	17.73 2	56	99.1	20.4	17.85 2	19	4.2	21.4	17.85 2	52	11.2	6.3
17.75 2	15	90.3	12.4	17.48 2	28	93.1	12.3	16.32 7	57	99.4	22.2	11.71 11	21	4.4	1.6	17.00 2	52	11.3	7.6
15.89 7	18	90.9	5.8	17.28 2	29	93.2	4.0	17.77 2	58	99.5	1.6	13.95 13	23	5.0	20.4	17.85 2	55	11.9	11.4
17.29 2	19	91.2	8.3	17.09 2	30	93.5	4.8	16.95 2	58	99.6	59.4	16.66 4	24	5.2	21.5	17.91 2	55	12.0	9.8
17.07 2	19	91.2	11.1	16.54 7	31	93.8	2.6	17.35 2	58	99.6	20.7	17.93 2	28	6.0	4.9	13.95 11	59	12.7	12.6
15.44 8	20	91.4	13.7	18.03 2	32	93.8	7.2	18.03 2	59	99.7	3.6	14.46 11	28	6.2	4.4				
16.44 7	21	91.6	14.3	17.69 2	32	93.9	14.9	17.25 2	61	0.2	2.0	16.67 4	29	6.3	3.8				
15.34 7	22	91.7	7.4	15.65 7	32	94.0	5.9	15.45 8	64	0.8	21.8	16.47 7	38	8.2	20.2				
14.13 12	22	91.7	9.1	17.37 2	39	95.4	1.4	17.79 2	65	1.0	59.4	14.90 10	43	9.3	4.4				
17.85 2	23	91.9	6.7	16.49 7	39	95.5	1.4	12.99 15	66	1.2	3.8	17.64 2	43	9.3	5.1				
12.18 16	23	92.1	16.4	15.42 9	42	96.0	3.4	16.31x 4	69	1.9	0.4	16.63 2	43	9.4	4.3				
16.63 4	25	92.4	4.6	16.60 6	42	96.2	1.8	17.07 2	69	2.0	0.2	17.79 2	44	9.6	3.8				
16.56 7	25	92.4	9.8	16.52 7	43	96.3	1.0	10.45 10	69	2.0	2.7	16.20 7	45	9.8	7.2				
16.97 2	25	92.4	11.2	16.79 2	44	96.6	20.9	10.00 9	69	2.0	2.8	17.85 2	46	10.0	15.8				
16.79 4	25	92.4	13.2	17.15 2	47	97.2	3.8	16.61 7	73	2.8	1.4	17.76 2	47	10.1	8.3				
16.89 2	25	92.5	8.8	17.66 2	47	97.2	21.4	17.47 2	73	2.8	2.4	15.07 10	47	10.1	16.0				
16.83 2	26	92.7	10.4	16.21 7	49	97.6	4.2	16.53 7	73	2.9	1.4	17.82 2	48	10.4	5.3				
17.41 2	27	92.8	7.6	17.29 2	50	97.8	21.7	15.18 9	75	3.2	4.6	15.08 10	49	10.6	6.0				
16.06 7	27	92.8	11.2	17.49 2	51	98.0	3.0	16.63 4	76	3.4	21.7	17.73 2	50	10.9	5.7				
13.95 12	27	92.9	4.4	17.07 2	54	98.7	20.3	17.88 2	79	4.0	20.1	15.23 9	51	11.1	11.5				

25 prec. + $78^{s}.8$, + 8′ 18″

Area 45. Center for 1900: 1^{h} 26^{m} + 30° 10′ (15′ × 15′)

1—35				36—70				71—105				106—140				141—155			
Mag.	α 25^{m}	x	$y+10'$	Mag.	α 25^{m}	x	$y+10'$	Mag.	α 26^{m}	x	$y+10'$	Mag.	α 26^{m}	x	$y+10'$	Mag.	α 26^{m}	x	$y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
16.10 9	35.3	94.64	12 46	17.63 3	51.4	98.14	5 33	17.91 3	4.1	0.88	9 00	14.02 13	22.2	4.80	2 20	16.91 6	34.9	7.54	1 30
18.68 1	35.4	94.68	13 54	17.41 5	51.4	98.14	0 41	14.17 14	4.2	0.90	9 13	18.74 1	22.2	4.81	4 31	18.68 1	37.3	8.07	2 43
18.79 1	35.3	94.68	9 11	18.74 1	51.5	98.16	11 48	11.08w 11	4.4	0.94	11 40	15.84 9	23.1	5.00	3 34	17.67 3	37.3	8.07	9 01
18.41 2	35.5	94.70	12 57	18.35 3	52.4	98.36	5 47	17.25 7	4.9	1.06	14 47	15.75 10	24.1	5.22	6 53	18.63 1	37.7	8.16	0 41
18.74 1	35.5	94.71	11 11	16.66 8	53.2	98.53	3 34	17.12 5	5.3	1.15	0 48	15.98 9	24.3	5.26	9 15	16.73 8	37.8	8.18	11 18
18.68 1	36.7	94.97	3 03	18.30 2	53.6	98.62	1 08	18.18 2	5.4	1.19	8 49	17.77 3	24.6	5.33	13 36	17.49 3	38.4	8.32	9 15
17.50 3	37.6	95.16	13 38	18.25 3	54.0	98.70	7 38	15.56 9	6.5	1.40	14 53	18.34 3	24.7	5.34	8 44	13.98 13	39.4	8.52	4 39
16.98 8	38.5	95.35	4 13	13.92 12	54.2	98.74	4 11	17.39 5	7.1	1.54	10 44	15.82 8	24.8	5.37	14 56	18.63 1	39.9	8.64	3 12
15.56 10	39.0	95.46	7 55	18.46 1	55.1	98.94	9 07	17.23 5	7.9	1.70	0 12	18.33 2	24.9	5.39	2 47	18.63 1	40.0	8.66	0 49
17.28 8	40.7	95.83	3 21	17.85 3	55.5	99.02	1 09	17.08 8	9.1	1.98	9 13	11.37w 12	25.2	5.47	0 07	18.29 3	40.0	8.67	8 37
18.63 1	41.7	96.04	9 23	15.97 9	55.9	99.12	12 09	18.90 1	9.2	1.99	8 32	18.68 1	25.2	5.47	12 11	12.52w 14	40.3	8.73	14 08
18.74 1	41.8	96.06	3 19	18.74 1	56.3	99.20	0 36	9.00w 7	9.2	2.01	6 38	16.11 8	25.9	5.60	7 58	17.05 8	40.6	8.79	8 05
17.28 6	42.5	96.22	9 31	14.68 12	56.5	99.22	14 55	16.85 8	10.0	2.16	13 47	18.68 1	26.0	5.63	1 03	18.57 1	40.9	8.84	2 38
18.50 2	42.5	96.23	3 54	15.99 9	57.2	99.39	14 26	18.03 3	11.0	2.38	5 53	16.51 8	26.1	5.64	8 21	17.28 3	42.2	9.14	1 50
16.74 8	43.2	96.36	0 31	16.71 8	57.2	99.41	0 53	16.15 8	11.3	2.45	8 30	16.30 8	26.1	5.64	9 57	18.63 1	43.6	9.45	3 19
17.23 3	43.8	96.50	7 53	16.88 6	57.9	99.55	6 14	17.44 3	11.4	2.46	1 12	18.68 1	26.6	5.76	0 51				
18.38 2	44.4	96.62	3 39	17.88 3	58.0	99.56	1 26	14.30 14	11.7	2.52	11 42	18.74 1	27.0	5.84	3 02				
18.74 1	44.5	96.65	14 32	18.90 1	58.3	99.62	5 51	17.80 3	11.9	2.57	9 25	17.15 8	27.2	5.89	8 31				
18.74 1	44.7	96.69	13 14	17.57 5	58.9	99.77	3 24	18.85 1	12.7	2.76	5 59	17.49 5	27.9	6.05	8 32				
18.79 1	45.9	96.96	11 39	17.07 7	60.0	0.00	11 57	18.85 1	13.3	2.89	6 50	14.05 12	28.0	6.07	1 09				
17.91 2	46.1	97.00	4 36	17.56 4	60.0	0.01	3 33	16.88 5	14.0	3.03	0 53	15.47 10	28.9	6.27	2 27				
18.74 1	46.8	97.14	2 05	18.41 1	60.2	0.05	8 06	18.79 1	14.3	3.11	12 00	15.25 12	29.9	6.48	3 26				
16.59 9	46.8	97.15	2 34	18.74 1	60.7	0.14	14 30	18.68 1	14.4	3.13	8 18	18.41 1	29.9	6.48	14 01				
14.87 11	47.0	97.19	7 08	15.33 11	61.6	0.36	12 32	18.10 2	15.2	3.31	1 38	17.70 3	30.3	6.56	0 26				
16.33 7	47.4	97.28	0 47	18.90 1	61.7	0.38	10 07	14.76 12	15.7	3.41	10 36	17.84 3	31.2	6.74	2 55				
18.57 1	48.4	97.49	2 35	18.52 1	62.2	0.49	12 00	18.02 3	15.9	3.44	9 00	14.87 12	31.2	6.75	14 02				
13.05w 15	49.1	97.64	3 29	17.37 3	62.6	0.56	6 39	16.00 9	16.3	3.52	13 07	12.09w 12	32.5	7.05	14 13				
15.63 10	49.2	97.66	9 42	18.41 1	63.1	0.68	11 10	17.01 7	19.0	4.13	13 07	14.57 12	32.9	7.13	7 13				
18.79 1	49.4	97.71	11 52	17.25 5	63.3	0.73	14 21	17.36 5	20.3	4.40	1 51	18.30 1	33.5	7.26	6 56				
18.90 1	49.5	97.73	8 21	18.96 1	63.4	0.74	9 22	16.57 8	20.4	4.42	12 28	18.03 3	33.7	7.30	10 21				
15.54 10	50.2	97.88	11 09	17.79 3	63.4	0.74	5 32	18.22 2	20.8	4.51	14 13	18.68 1	34.0	7.36	2 09				
18.63 1	50.5	97.95	8 29	13.45 15	63.5	0.77	12 49	17.43 5	20.9	4.53	2 46	18.09 3	34.1	7.38	3 57				
18.74 1	50.8	98.00	13 42	18.85 1	63.8	0.83	4 05	15.24 11	21.1	4.57	4 03	13.52 11	34.2	7.40	14 06				
15.78 10	50.9	98.02	6 46	18.57 1	63.9	0.85	14 43	18.46 1	21.5	4.64	12 20	18.74 1	34.4	7.45	8 55				
18.90 1	50.9	98.02	8 42	18.52 3	63.9	0.85	10 59	15.47 10	21.7	4.69	10 16	17.76 3	34.5	7.47	12 17				

25 prec. + $83^{s}.9$, + 7′ 46″

1^{h}

Area 45. Supplementary Stars

+ 29°, + 30°

1s—15s				16s—30s				31s—45s				46s—60s				61s—75s			
Mag.	α 25^{m}	x	$y+10'$	Mag.	α 25^{m}	x	$\frac{y+70'}{y+10'}$	Mag.	α 25^{m}	x	$\frac{y+70'}{y+10'}$	Mag.	α 26^{m}	x	$\frac{y+70'}{y+10'}$	Mag.	α 26^{m}	x	$\frac{y+70'}{y+10'}$
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
17.36 2	17	90.8	4.2	17.65 2	31	93.6	8.4	17.42 2	43	96.4	57.6	16.70 7	15	3.3	57.9	16.90 5	39	8.4	16.1
13.94 11	18	90.9	5.8	17.74 2	31	93.7	1.5	16.18 7	53	98.5	59.6	16.43 7	16	3.5	58.6	15.00 10	41	8.9	58.8
15.54 8	21	91.6	10.0	16.89 3	31	93.8	0.8	16.71 7	54	98.8	16.3	17.07 6	17	3.7	17.7	12.75 14	45	9.7	7.9
17.92 2	22	91.8	6.8	17.96 2	31	93.8	3.2	17.10 2	55	99.0	58.6	14.93 9	18	3.8	17.0	17.47 2	46	10.0	0.5
11.49 10	23	91.9	8.8	17.34 2	31	93.8	5.2	17.01 5	57	99.4	16.6	12.77 14	18	4.0	59.0	16.90 2	47	10.1	12.8
18.07 2	24	92.3	10.8	15.86 8	31	93.8	9.4	16.02 7	60	99.9	57.0	17.52 2	19	4.2	17.0	14.79 11	47	10.2	7.2
15.38 8	25	92.4	7.8	17.16 2	33	94.2	5.6	16.56 7	60	0.1	16.3	17.65 2	20	4.4	59.7	17.03 7	48	10.4	8.2
16.90 7	26	92.7	8.4	14.86 9	33	94.2	7.6	15.81 7	61	0.2	57.4	14.86 9	24	5.2	56.4	17.34 2	50	10.8	6.2
17.93 2	27	92.9	3.0	18.54 2	33	94.2	13.3	15.32 7	69	2.0	57.4	17.59 2	25	5.3	15.3	12.15 13	51	11.1	3.6
17.39 2	27	92.9	10.3	17.07 7	34	94.4	6.1	16.37 7	70	2.1	16.4	17.84 2	29	6.2	58.6	17.25 2	52	11.3	3.2
17.14 4	28	93.0	11.3	17.24 4	34	94.4	6.2	15.38 8	70	2.2	18.2	17.13 3	29	6.3	56.0	16.03 7	52	11.3	3.6
17.17 5	29	93.2	12.0	17.60 2	39	95.4	15.6	15.84 7	71	2.3	58.0	16.97 7	33	7.1	56.3	16.94 4	52	11.3	4.4
15.86 7	29	93.2	12.2	16.95 5	41	95.8	57.2	15.51 7	73	2.9	56.0	17.58 2	35	7.6	15.4	17.16 3	53	11.4	3.1
17.98 2	29	93.4	12.2	16.67 7	41	95.8	0.0	16.65 7	74	3.1	57.8	18.00 2	36	7.9	56.7	17.49 5	52	11.4	3.4
15.49 8	30	93.5	2.0	17.91 2	42	96.0	57.1	17.16 6	75	3.2	17.1	17.01 3	36	7.9	58.0	17.44 4	53	11.5	3.9

25 prec. + $83^{s}.9$, + 7′ 46″

1^h

Area 45. Supplementary Stars

+ 30°

76*s*—85*s*				86*s*—88*s*			
Mag.	α 26^m	x	$y+10'$	Mag.	α 27^m	x	$y+10'$
	s	′	′		s	′	′
15.90 7	53	11.5	11.6	18.36 2	1	13.1	9.0
17.35 6	53	11.6	4.3	17.90 2	1	13.2	9.0
16.83 7	54	11.6	5.4	17.96 2	2	13.4	7.6
18.09 2	54	11.7	3.4				
16.38 7	54	11.8	9.3				
14.93 10	55	11.9	2.6				
14.72 11	56	12.2	5.5				
13.62 14	57	12.4	7.4				
14.89 9	57	12.4	9.8				
18.02 2	58	12.6	2.6				

25 prec. + $83^{s}.9$, + 7′ 46″

2^h

Area 46. Center for 1900: 2^h 29^m + 30° 10′ (15′ × 15′)

+ 30°

1—40				41—80				81—120				121—160				161—162			
Mag.	α 28^m	x	$y+10'$	Mag.	α 29^m	x	$y+10'$	Mag.	α 29^m	x	$y+10'$	Mag.	α 29^m	x	$y+10'$	Mag.	α 29^m	x	$y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
18.20 3	50.7	98.01	19 17	19.56 1	5.8	1.26	15 59	15.64 11	24.4	5.27	15 28	18.43 3	42.8	9.25	12 11	18.82 2	58.1	12.55	16 22
19.34 1	51.0	98.06	14 17	19.05 2	7.3	1.59	17 31	17.52 3	24.5	5.31	14 58	17.00 6	42.9	9.28	9 54	19.42 1	58.5	12.64	15 16
11.85w12	51.4	98.15	16 12	17.60 3	7.9	1.70	7 05	18.00 3	24.6	5.33	11 40	18.41 1	43.2	9.32	15 08				
19.08 2	51.9	98.26	17 16	17.46 5	8.1	1.75	19 58	17.20 8	25.3	5.47	11 00	18.11 3	43.5	9.41	17 59				
15.84 10	52.1	98.29	19 17	18.60 3	9.1	1.96	16 27	17.84 5	25.6	5.52	16 50	19.56 1	43.9	9.49	16 16				
19.02 2	53.0	98.48	11 11	17.15 7	10.4	2.25	9 59	19.34 1	25.7	5.56	5 44	18.94 2	44.3	9.59	9 01				
18.91 1	53.4	98.58	5 22	18.61 3	11.3	2.45	13 58	18.68 2	26.1	5.64	5 58	16.90 7	44.5	9.62	9 48				
18.20 3	54.0	98.70	12 03	15.57 10	12.4	2.68	14 03	16.92 7	26.1	5.65	11 11	17.90 3	44.6	9.64	6 41				
16.41 9	54.4	98.78	6 49	14.16 13	12.5	2.71	17 33	9.51w 8	26.6	5.75	14 37	15.01 11	45.2	9.76	10 41				
18.62 2	55.1	98.94	8 00	15.36 11	12.6	2.73	8 14	16.80 8	26.7	5.76	13 23	19.49 1	45.4	9.81	11 18				
16.84 9	55.1	98.95	16 16	17.39 7	13.7	2.96	7 57	18.83 2	27.3	5.89	17 46	15.49 11	45.5	9.83	15 54				
18.72 3	55.2	98.97	19 25	15.87 8	13.8	2.98	14 48	18.77 1	27.9	6.04	5 58	18.86 2	45.6	9.87	6 06				
18.65 3	55.7	99.07	17 33	17.62 5	13.9	3.00	15 31	17.13 6	28.1	6.08	12 05	17.64 5	46.9	10.14	9 29				
18.74 2	56.3	99.20	18 32	18.21 3	13.9	3.00	17 26	17.11 6	29.6	6.40	10 05	18.51 3	47.0	10.18	6 22				
17.60 3	56.5	99.24	10 01	17.06 8	13.9	3.01	15 07	19.70 1	29.8	6.45	15 45	16.94 8	47.2	10.21	15 26				
13.31 15	57.5	99.46	6 34	19.49 1	14.1	3.05	19 26	19.05 3	31.3	6.77	19 16	17.08 6	47.3	10.25	9 22				
15.68 11	57.5	99.46	15 06	16.18 9	14.5	3.12	11 11	17.29 5	31.7	6.86	9 38	15.66 11	48.3	10.42	14 49				
18.85 3	58.1	99.60	19 47	19.42 1	15.8	3.43	8 22	18.15 5	32.1	6.95	18 56	17.02 7	48.3	10.47	6 32				
17.44 5	58.4	99.67	10 12	19.49 1	16.0	3.46	13 18	19.70 1	32.7	7.07	15 47	15.20 11	48.5	10.50	8 08				
17.74 3	58.7	99.73	14 52	16.26 9	16.1	3.48	6 08	15.46 11	32.7	7.08	6 14	19.00 2	48.9	10.56	15 25				
18.12 3	59.3	99.86	11 57	14.36 14	16.9	3.65	15 27	19.00 2	33.8	7.33	5 00	19.42 1	49.3	10.65	19 38				
19.08 3	59.7	99.95	13 21	19.63 1	17.4	3.76	13 55	16.94 8	34.1	7.36	12 56	18.77 3	50.1	10.83	18 39				
18.67 3	60.0	0.00	15 46	17.30 4	17.6	3.81	7 41	11.41w13	34.2	7.39	15 12	19.49 1	50.3	10.87	13 19				
16.18 9	60.1	0.04	9 51	19.24 2	18.1	3.90	14 44	18.33 3	34.2	7.40	9 41	15.37 11	50.7	10.96	15 49				
18.79 3	60.5	0.11	6 20	17.70 3	18.3	3.95	14 25	19.34 1	34.4	7.44	6 54	16.84 6	50.6	10.96	5 06				
16.52 9	61.2	0.27	6 03	17.80 3	18.8	4.06	19 24	16.93 6	35.0	7.56	17 20	18.68 2	51.1	11.05	18 06				
19.10 2	61.6	0.34	18 37	14.20 12	18.8	4.08	5 33	15.63 11	34.9	7.56	8 03	19.42 1	51.1	11.07	9 29				
17.53 3	61.7	0.36	15 10	13.77 15	19.2	4.14	13 01	15.30 11	35.7	7.73	8 09	18.59 3	51.3	11.08	16 45				
11.53w12	62.3	0.50	16 52	16.19 9	19.1	4.15	9 39	17.39 3	36.4	7.88	7 14	17.04 6	52.9	11.45	7 31				
15.87 10	62.8	0.61	8 03	15.87 9	19.4	4.21	5 01	18.44 3	37.3	8.07	6 22	18.41 3	53.1	11.48	15 25				
14.98 12	62.9	0.63	18 56	17.76 3	20.7	4.47	12 55	16.74 9	37.3	8.08	5 42	16.02 10	53.4	11.54	18 51				
16.52 9	63.2	0.71	13 48	16.43 8	20.8	4.50	17 13	18.83 3	37.8	8.18	8 14	15.16 12	53.4	11.54	17 01				
19.42 1	63.5	0.77	16 30	19.16 2	20.8	4.51	19 37	18.55 3	38.0	8.22	6 00	19.42 1	54.3	11.72	19 42				
18.74 3	63.6	0.78	13 54	19.63 1	20.9	4.52	15 58	18.83 3	38.3	8.27	15 58	18.87 3	54.5	11.77	19 05				
17.81 5	63.6	0.79	13 33	17.94 3	21.5	4.65	11 52	14.67 14	38.4	8.30	17 36	15.83 10	54.8	11.87	7 28				
17.80 3	63.9	0.84	7 00	17.44 6	22.5	4.87	17 48	18.27 3	40.1	8.66	18 51	17.82 3	55.3	11.98	6 03				
16.79 9	64.0	0.87	18 33	19.27 1	23.7	5.12	5 05	19.34 1	40.5	8.76	7 07	17.65 5	56.3	12.16	15 02				
18.65 3	64.1	0.88	17 31	19.19 2	24.0	5.19	11 01	18.77 1	40.5	8.76	5 27	16.99 8	56.4	12.19	13 53				
19.03 2	64.5	0.97	5 00	18.94 3	24.3	5.24	10 45	18.76 3	42.3	9.15	13 41	19.27 1	57.4	12.43	5 50				
17.76 3	64.6	1.00	18 56	17.30 6	24.3	5.25	17 17	19.06 1	42.3	9.16	9 50	18.96 2	57.5	12.43	15 22				

25 prec. + $88^{s}.6$, + 6′ 38″

3^h Area 46. Supplementary Stars + 30°

1s—25s Mag.		α 28^m	x	$y+10'$
		s	′	′
15.96	7	34	94.4	16.6
18.64	2	35	94.6	15.6
14.50	11	38	95.3	17.2
18.68	2	38	95.4	16.8
17.68	2	42	96.0	9.8
14.99	9	41	96.0	14.4
16.33	7	43	96.3	9.7
18.10	2	44	96.5	11.4
17.12	5	44	96.6	14.7
18.38	2	46	97.0	6.9
17.89	2	46	97.0	16.4
17.61	2	47	97.2	9.8
18.79	2	48	97.4	12.6
15.56	9	48	97.4	22.3
18.37	2	49	97.6	11.7
18.01	2	49	97.6	16.8
18.19	2	50	97.8	13.3
17.97	2	50	97.8	17.1
18.19	2	50	97.8	20.4
17.53	2	51	98.0	20.1
10.73	7	51	98.1	22.8
17.61	4	55	99.0	22.0
14.69	9	59	99.7	21.6
15.19	10	59	99.8	22.0
16.94	5	60	0.0	20.4

26s—50s Mag.		α 29^m	x	$y+10'$
		s	′	′
16.88	7	5	1.0	20.5
17.23	5	10	2.1	24.6
18.57	2	10	2.2	22.6
17.97	2	10	2.2	25.0
17.29	4	12	2.5	22.3
17.45	5	12	2.5	24.9
13.19	15	13	2.9	23.2
17.21	4	14	3.0	22.0
17.01	5	16	3.4	20.2
17.08	6	16	3.4	22.0
16.59	7	19	4.1	20.4
18.07	2	19	4.1	21.3
14.86	10	25	5.3	24.9
18.13	2	26	5.6	23.4
14.31	12	26	5.6	25.6
15.30	9	29	6.2	3.6
14.96	10	29	6.2	25.4
16.71	3	30	6.4	21.5
17.11	7	30	6.6	21.4
13.94	12	31	6.6	23.6
18.40	2	32	6.8	3.4
14.98	11	32	6.8	20.0
15.04	10	31	6.8	22.3
15.07	10	32	6.9	21.6
17.37	5	37	7.9	4.0

51s—75s Mag.		α 29^m	x	$y+10'$
		s	′	′
14.49	10	38	8.1	20.4
15.23	10	38	8.1	20.5
14.69	11	38	8.1	20.6
18.45	2	38	8.3	20.9
18.55	2	39	8.4	3.4
16.84	7	39	8.5	23.3
11.46	11	40	8.7	21.1
19.14	2	41	8.8	20.8
17.71	2	41	8.9	24.6
18.43	2	43	9.4	5.0
17.02	5	49	10.6	20.2
17.29	4	49	10.6	21.8
17.87	2	51	10.9	22.2
17.48	4	51	10.9	23.0
17.64	4	51	11.0	5.0
16.55	7	51	11.0	24.4
16.91	5	53	11.5	20.8
17.95	2	53	11.5	21.8
16.99	5	54	11.6	4.7
17.43	2	55	11.8	23.3
17.72	2	55	11.9	20.4
16.47	8	56	12.1	21.1
17.58	4	60	13.0	17.7
18.38	2	61	13.1	16.6
17.41	2	62	13.4	6.2

76s—100s Mag.		α 30^m	x	$y+10'$
		s	′	′
16.92	5	2	13.4	22.6
17.12	6	3	13.5	15.4
18.37	2	3	13.6	16.4
18.83	2	3	13.6	17.4
17.20	6	4	13.8	9.2
18.31	2	4	13.8	15.0
17.49	2	5	14.1	13.0
18.31	2	7	14.4	10.1
13.78	12	7	14.5	11.0
17.87	2	8	14.6	12.0
17.27	6	7	14.6	16.0
17.64	4	8	14.6	17.2
17.29	4	9	14.9	17.1
15.54	8	9	15.0	13.1
18.00	2	9	15.0	15.6
18.15	2	11	15.2	13.5
15.94	7	11	15.3	11.8
16.53	7	11	15.4	11.1
18.07	2	11	15.4	11.5
16.85	7	12	15.6	13.3
14.83	11	13	15.8	8.6
18.30	2	13	15.8	9.2
13.02	14	14	16.0	10.9
15.67	8	15	16.1	14.1
18.43	2	15	16.1	17.6

101s—103s Mag.		α 30^m	x	$y+10'$
		s	′	′
18.51	2	15	16.2	9.9
17.45	2	16	16.4	13.8
18.29	2	17	16.6	13.4

25 prec. + $88^{s}.6$, + 6′ 38″

3^h Area 47. Center for 1900: $3^h\ 23^m$ + 30° 0′ (15′ × 15′) + 29°, + 30°

1—25 Mag.		α 22^m	x	$y+60'$ y
		s	′	′ ″
17.90	2	4.9	88.07	56 01
17.82	3	5.5	88.21	6 51
18.72	1	7.3	88.60	8 31
18.48	1	8.3	88.80	6 40
18.72	1	9.3	89.01	56 26
18.11	3	9.4	89.05	2 37
17.12	5	9.4	89.06	2 33
17.83	3	9.6	89.11	2 46
17.55	3	11.2	89.44	55 18
17.98	3	11.4	89.48	6 00
18.60	1	12.7	89.77	5 59
17.92	2	14.0	90.04	57 14
18.60	1	16.1	90.50	8 01
16.76	8	17.8	90.87	56 09
18.30	1	18.1	90.93	9 00
16.82	9	18.6	91.04	58 46
18.78	1	25.7	92.58	7 33
14.53	14	32.6	94.07	1 59
17.26	5	33.9	94.35	9 02
18.40	3	35.7	94.74	3 44
15.51	8	37.7	95.18	1 23
7.46w	4	38.5	95.35	1 42
18.91	1	39.8	95.63	59 08
18.30	3	45.9	96.96	59 57
18.42	1	47.5	97.29	1 07

26—50 Mag.		α 22^m	x	$y+60'$ y
		s	′	′ ″
18.30	1	50.7	97.98	5 31
18.02	3	51.9	98.24	56 27
18.01	3	52.1	98.31	7 29
18.23	1	52.2	98.32	5 15
18.09	1	53.1	98.51	56 28
16.60	10	54.7	98.84	9 29
18.54	1	54.7	98.84	2 51
15.74	11	55.4	99.00	7 29
18.42	1	56.9	99.33	59 25
18.18	2	57.0	99.35	1 20
17.71	3	57.2	99.39	59 30
18.11	3	57.6	99.49	5 46
18.67	1	57.7	99.50	3 02
16.75	9	57.8	99.53	57 04
17.91	3	58.2	99.61	6 45
18.23	1	58.3	99.63	8 11
18.30	1	58.4	99.65	3 35
18.15	3	58.5	99.67	4 16
18.54	1	59.5	99.89	4 18
18.78	1	59.5	99.90	57 02
17.18	5	59.7	99.95	4 31
15.74	11	59.8	99.97	3 30
18.06	3	59.9	99.99	5 10
18.67	1	60.0	0.00	4 23
17.81	3	60.9	0.19	7 15

51—75 Mag.		α 23^m	x	$y+60'$ y
		s	′	′ ″
17.91	3	0.9	0.20	4 23
18.78	1	2.4	0.53	4 01
18.09	1	3.5	0.77	7 08
14.99	13	3.7	0.81	2 57
16.41	10	4.6	1.01	3 22
18.78	1	4.7	1.02	4 08
17.95	3	5.7	1.25	2 10
18.78	1	6.0	1.30	4 14
18.78	1	6.7	1.46	58 27
18.72	1	6.8	1.47	6 01
17.77	3	6.8	1.48	7 47
18.08	3	6.8	1.48	3 39
17.18	5	8.3	1.81	6 08
17.43	3	8.3	1.81	9 19
18.72?	1	8.4	1.83	7 35
18.72	1	8.7	1.88	6 01
17.93	3	8.7	1.88	1 51
18.23	1	10.1	2.18	55 24
18.23	1	10.1	2.19	6 47
18.78	1	10.5	2.27	2 02
18.30	1	10.9	2.36	1 20
18.16	1	11.7	2.53	5 58
15.51	11	12.0	2.60	8 18
18.23	1	12.0	2.61	55 49
18.67	1	12.7	2.75	4 28

1s—25s Mag.		α 21^m	x	$y+60'$ y
		s	′	′
17.39	2	47	84.2	0.7
17.04	2	49	84.6	2.6
17.64	2	50	84.9	57.2
17.73	2	50	84.9	58.3
17.62	2	51	85.1	58.8
17.62	2	52	85.3	58.2
15.58	9	55	85.9	7.4
16.32	8	55	86.0	7.9
17.47	2	58	86.5	59.5
17.68	2	59	86.8	8.6
17.81	2	60	87.0	58.0
16.74:	4	60	87.0	8.4
17.54	2	60	87.0	9.6
17.96	2	61	87.2	2.4
17.87	2	62	87.4	2.6
17.60	2	64	88.0	10.6
17.30	2	96	94.9	50.0
17.40	2	97	95.0	50.4
16.98	2	102	96.2	50.6
16.65	8	102	96.2	52.4
15.53	9	103	96.2	53.2
16.42	8	103	96.2	10.2
17.56	2	104	96.4	51.9
17.46	2	107	97.2	51.7
16.76	5	109	97.6	51.7

26s—40s Mag.		α 22^m	x	$y+60'$ y
		s	′	′
17.90	2	54	98.7	54.4
13.42	15	54	98.8	54.6
17.48	2	61	0.2	53.4
17.66	2	66	1.2	10.6
17.62	2	76	3.4	57.4
17.64	2	77	3.6	4.2
17.02	4	79	4.2	6.2
17.84	2	81	4.6	0.1
16.57	8	81	4.6	0.6
17.78	2	84	5.2	58.0
17.12	2	85	5.4	59.0
17.76	2	85	5.5	0.9
17.68	2	86	5.7	6.3
17.66	2	87	5.9	57.2
17.54	2	91	6.8	4.1

25 prec. + $91^{s}.7$, + 5′ 17″

Area 48. Center for 1900: $4^{\mathrm{h}}\ 23^{\mathrm{m}} + 30°\ 10'$ $(15' \times 15')$

1—60					61—120					121—180					181—240					241—300				
Mag.		α 21^{m}	x	$y+10'$	Mag.		α 22^{m}	x	$y+10'$	Mag.		α 22^{m}	x	$y+10'$	Mag.		α 22^{m}	x	$y+10'$	Mag.		α 22^{m}	x	$y+10'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
18.15	3	58.4	86.69	14 39	17.24	3	5.6	88.25	13 47	17.90	3	14.5	90.14	6 29	18.50	3	23.9	92.21	11 47	16.01	10	33.1	94.19	12 15
17.69	5	58.4	86.70	11 24	17.68	3	5.6	88.26	10 29	18.57	2	14.4	90.16	11 45	14.91	12	24.1	92.24	14 54	6.91h	1	33.2	94.20	8 22
18.78	1	58.5	86.73	10 31	18.36	3	5.7	88.26	7 04	18.88	1	14.5	90.16	2 30	17.16	2	24.5	92.32	2 35	16.31	10	33.2	94.22	13 57
18.97	1	58.7	86.76	10 09	18.25	3	5.8	88.27	5 39	16.69	9	14.6	90.17	8 45	15.51	11	24.7	92.37	2 36	18.62	1	33.3	94.23	7 00
18.52	2	59.0	86.79	4 32	18.05	3	6.1	88.34	0 05	18.16	3	14.8	90.22	7 22	18.54	3	24.7	92.37	1 39	18.64	2	33.4	94.25	9 49
18.92	1	59.1	86.84	11 30	18.46	1	6.4	88.40	8 03	16.47	10	14.9	90.25	8 18	18.55	3	25.0	92.42	1 52	18.97	1	33.4	94.25	3 06
18.03	3	59.2	86.84	1 08	17.30	7	6.5	88.42	6 06	18.97	1	14.9	90.27	13 09	17.88	3	25.2	92.47	2 06	12.43w	15	33.6	94.31	11 57
18.39	3	59.2	86.85	5 57	14.15	14	6.6	88.45	5 59	17.70	3	15.1	90.28	4 25	17.28	7	25.2	92.48	4 59	18.65	3	33.9	94.36	11 48
17.70	3	59.5	86.91	6 28	18.73	1	6.6	88.46	11 14	18.45	3	15.1	90.30	11 22	18.78	2	25.3	92.50	9 21	8.74w	6	33.9	94.36	8 34
16.45	10	59.6	86.93	6 42	14.47	13	6.6	88.46	14 37	17.31	3	15.2	90.32	10 50	19.01	1	25.5	92.54	10 06	17.63	5	33.9	94.37	13 36
17.18	5	59.7	86.94	2 17	16.58	9	7.1	88.54	5 54	18.31	3	15.2	90.33	11 10	17.82	3	25.5	92.56	12 21	17.68	4	34.0	94.38	10 19
15.08	12	59.7	86.95	7 34	17.08	9	7.1	88.56	5 51	16.39	9	15.6	90.41	12 48	18.97	1	25.5	92.57	12 45	17.14	7	34.1	94.40	6 43
18.88	1	59.6	86.97	14 59	18.97	1	7.1	88.57	12 14	18.37	3	15.7	90.42	11 44	16.18	8	25.6	92.57	8 34	18.10	4	34.3	94.44	6 52
17.36	5	60.0	87.05	11 10	18.27	3	7.3	88.59	7 20	18.36	2	15.8	90.45	12 09	18.24	3	25.9	92.63	8 48	18.97	1	34.3	94.45	13 04
16.61	9	60.1	87.07	13 14	18.97	1	7.5	88.65	3 51	19.01	1	15.8	90.45	7 33	18.74	2	26.0	92.64	4 54	18.33	3	34.4	94.46	1 05
18.20	3	60.5	87.13	5 51	19.01	1	7.6	88.66	9 32	18.54	3	16.0	90.49	4 57	17.93	3	25.9	92.65	13 00	17.07	6	34.7	94.54	12 28
18.92	1	60.7	87.19	13 31	19.01	1	8.5	88.85	5 43	17.01	7	16.1	90.50	9 58	17.41	7	26.1	92.66	3 54	18.92	1	34.8	94.54	2 03
18.92	1	60.7	87.20	12 56	18.97	1	8.5	88.86	5 13	19.05	1	16.4	90.56	8 42	12.56	15	26.1	92.67	3 39	17.35	5	34.8	94.55	8 32
17.26	5	60.9	87.20	6 56	18.25	3	8.6	88.87	1 15	17.34	7	16.4	90.56	7 42	18.60	3	26.3	92.71	9 45	18.53	3	34.9	94.56	6 28
18.69	2	61.0	87.23	0 50	17.29	5	8.6	88.88	1 32	18.78	1	16.8	90.67	14 17	14.57	14	26.5	92.74	4 52	18.77	2	34.9	94.57	4 59
18.42	3	61.1	87.24	2 11	16.22	10	8.7	88.91	1 57	18.34	3	16.8	90.67	13 29	19.01	1	26.5	92.76	12 01	17.59	4	35.0	94.60	12 31
17.92	3	61.2	87.31	12 40	18.92	1	8.9	88.94	3 58	17.34	3	17.1	90.73	0 32	18.39	2	26.5	92.76	8 26	17.31	6	35.2	94.62	8 39
16.93	6	61.4	87.33	6 02	18.97	1	8.9	88.95	5 57	18.92	1	17.2	90.75	0 58	18.97	1	26.7	92.80	3 32	18.70	3	35.2	94.64	12 43
17.99	3	61.6	87.37	3 59	16.41	9	8.9	88.97	12 27	19.05	1	17.2	90.75	6 05	18.97	1	26.7	92.81	9 02	18.46	2	35.4	94.68	5 35
18.92	1	61.7	87.40	10 38	18.29	3	9.2	89.00	1 05	18.97	1	17.2	90.77	11 31	18.39	1	27.0	92.87	11 13	13.60	16	35.7	94.76	13 23
18.97	1	61.8	87.43	11 14	18.47	3	9.7	89.12	8 15	17.73	3	17.7	90.84	7 35	17.42	3	27.7	93.01	0 22	18.62	1	35.8	94.77	9 29
18.34	3	61.9	87.43	9 32	18.27	3	9.9	89.16	8 12	16.29	10	17.8	90.89	13 10	17.43	3	27.8	93.05	14 44	15.73	10	36.0	94.80	0 26
18.31	3	62.1	87.47	0 38	16.37	10	9.9	89.16	9 54	18.73	1	18.0	90.92	14 28	17.49	5	28.0	93.08	7 15	17.71	5	36.1	94.82	9 38
15.65	10	62.3	87.55	10 23	15.07	12	10.0	89.20	12 47	17.56	5	18.3	90.99	11 06	16.10	10	28.0	93.08	11 42	18.62	1	36.2	94.87	10 09
14.45	14	62.5	87.57	3 01	18.00	3	10.3	89.25	8 45	18.97	1	18.6	91.05	2 40	16.34	10	28.3	93.15	3 10	18.19	2	36.3	94.88	7 49
17.81	3	62.8	87.63	4 20	18.92	1	10.4	89.26	9 02	18.97	1	19.4	91.22	12 19	17.72	3	28.4	93.16	1 32	17.08	7	36.6	94.94	0 31
17.41	5	62.8	87.65	13 25	18.88	1	10.6	89.30	2 42	17.72	3	19.5	91.25	13 21	18.36	3	28.7	93.24	13 49	18.54	3	36.6	94.95	11 03
18.88	1	63.1	87.68	0 11	18.36	2	10.6	89.33	13 32	19.09	1	20.0	91.34	7 23	18.78	1	28.7	93.25	11 51	18.92	1	36.9	95.00	3 00
17.76	3	63.2	87.72	12 20	17.09	8	10.8	89.36	9 10	18.39	3	20.1	91.36	3 49	16.42	10	28.7	93.25	11 13	18.92	1	37.2	95.06	2 48
18.97	1	63.3	87.72	6 15	18.92	1	10.8	89.37	14 24	18.39	1	20.1	91.37	2 13	16.56	10	28.8	93.25	3 16	18.58	2	37.1	95.07	14 14
16.08	10	63.4	87.76	9 13	16.23	10	10.8	89.38	12 21	17.29	7	20.1	91.37	9 58	18.11	3	28.8	93.26	8 27	18.47	3	37.4	95.10	4 09
18.44	2	63.3	87.76	11 39	14.94	11	10.9	89.39	11 56	16.78	9	20.2	91.40	14 09	15.66	11	29.1	93.32	10 06	16.33	10	37.4	95.11	7 39
18.43	3	63.4	87.77	12 33	19.01	1	11.1	89.42	6 19	18.80	2	20.5	91.46	3 43	16.57	9	29.2	93.34	13 42	15.63	11	37.8	95.20	4 51
18.64	2	63.5	87.78	8 31	18.32	3	11.3	89.46	3 58	17.10	7	20.5	91.48	11 05	18.27	3	29.6	93.45	14 51	16.22	10	37.9	95.22	11 12
18.92	1	63.5	87.78	1 28	18.97	1	11.3	89.48	12 47	16.68	9	20.8	91.54	10 03	19.05	1	29.8	93.46	6 49	16.63	9	37.9	95.23	3 49
18.92	1	63.9	87.87	3 12	18.40	3	11.6	89.53	0 23	18.39	3	21.1	91.58	7 18	18.27	3	30.1	93.52	6 53	17.53	3	38.0	95.24	10 38
18.46	3	64.0	87.88	5 39	19.05	1	11.8	89.57	6 44	18.42	3	21.1	91.59	7 11	18.52	3	30.0	93.52	11 16	17.33	5	38.0	95.25	11 52
18.19	3	64.2	87.94	14 42	17.47	3	12.1	89.66	11 39	18.24	3	21.2	91.62	11 07	16.44	10	30.1	93.55	12 22	17.78	4	38.1	95.26	8 40
18.50	2	64.3	87.95	3 55	18.88	1	12.3	89.71	10 10	17.58	3	21.4	91.66	12 37	17.45	5	30.2	93.57	10 36	18.88	1	38.1	95.27	1 36
18.44	2	64.3	87.97	12 15	17.85	3	12.5	89.73	7 17	16.67	9	21.5	91.66	2 18	18.51	1	30.3	93.58	14 39	16.81	8	38.4	95.33	4 00
16.18	10	64.5	87.99	4 40	17.91	3	12.7	89.77	6 32	18.56	3	21.4	91.67	12 53	17.61	3	30.4	93.60	3 45	15.72	10	38.5	95.37	14 45
18.68	2	64.6	88.00	4 12	18.36	3	12.6	89.77	13 31	18.33	3	21.7	91.72	13 52	18.17	3	30.7	93.67	1 04	18.60	2	38.7	95.40	5 16
18.36	3	64.8	88.03	9 25	17.22	5	12.7	89.77	1 36	16.29	10	21.8	91.75	10 48	17.34	6	30.7	93.67	11 30	16.04	10	38.8	95.42	8 37
18.34	3	64.8	88.04	5 28	17.49	3	12.7	89.78	14 51	16.38	9	21.9	91.76	2 17	17.26	5	30.8	93.68	2 25	17.36	5	38.9	95.44	14 21
18.39	3	64.6	88.05	14 24	18.35	3	12.8	89.80	10 20	18.26	3	21.9	91.76	4 04	11.61w	14	30.8	93.68	6 24	18.35	3	39.4	95.54	11 34
19.01	1	65.1	88.12	8 04	18.46	3	12.9	89.80	4 10	18.52	3	21.9	91.77	10 11	15.61	11	31.0	93.73	5 38	18.46	1	39.7	95.60	9 26
18.73	1	65.2	88.14	5 53	18.60	3	12.9	89.80	6 43	18.68	1	21.9	91.78	11 39	14.55	12	31.8	93.89	6 34	18.30	3	39.6	95.61	12 49
18.58	2	65.2	88.15	8 39	18.48	3	13.6	89.96	8 38	18.67	2	22.3	91.85	3 42	16.92	9	31.8	93.91	4 01	17.91	3	39.7	95.62	14 09
18.25	3	65.2	88.16	14 16	18.71	2	14.1	90.06	6 55	18.47	3	22.3	91.85	9 18	17.12	6	32.1	93.96	11 40	18.35	3	40.6	95.81	8 47
17.57	3	65.3	88.17	7 45	18.44	2	14.0	90.06	14 41	18.82	2	22.4	91.87	6 48	18.46	1	32.2	93.98	9 36	18.29	3	40.6	95.81	3 44
16.77	8	65.4	88.18	4 57	18.62	1	14.0	90.06	11 43	15.54	11	22.8	91.94	4 53	18.68	1	32.5	94.06	9 37	18.75	2	40.9	95.88	13 14
18.19	3	65.5	88.20	7 24	18.16	3	14.0	90.06	12 41	16.12	10	22.9	91.97	4 12	18.38	2	32.7	94.10	3 30	16.80	9	41.3	95.96	4 11
17.37	3	65.5	88.20	5 34	17.65	5	14.1	90.07	9 28	18.83	1	23.0	92.01	11 38	15.97	10	32.9	94.15	1 01	18.73	1	41.4	95.97	4 53
17.42	3	65.5	88.21	2 27	16.61	9	14.1	90.09	12 14	17.47	4	23.3	92.06	9 35	17.68	3	32.9	94.15	13 44	17.58	4	41.5	96.01	9 10
16.84	8	65.6	88.25	12 14	18.43	3	14.4	90.13	3 10	18.72	2	23.9	92.18	0 10	18.10	3	33.0	94.17	4 29	18.04	3	41.8	96.06	8 03

25 prec. + $94^{\mathrm{s}}.4$, + 3′ 27″

301—360					361—420					421—480					481—489				
Mag.		α 22^m	x	$y+10'$	Mag.		α 22^m	x	$y+10'$	Mag.		α 22^m	x	$y+10'$	Mag.		α 23^m	x	$y+10'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
18.20	3	41.7	96.06	10 14	18.54	3	49.7	97.78	8 15	18.88	1	57.0	99.34	4 10	16.65	6	6.3	1.37	9 31
18.78	1	41.7	96.06	14 20	18.58	3	49.7	97.78	11 06	18.92	1	57.0	99.35	8 29	18.41	3	6.5	1.40	10 08
18.62	1	42.3	96.17	8 53	17.32	5	49.8	97.79	0 13	16.88	8	57.0	99.35	7 51	14.63	13	6.7	1.45	11 49
15.15	12	42.3	96.18	10 27	18.53	3	49.8	97.80	11 46	18.11	3	57.4	99.44	11 15	18.88	1	6.8	1.47	7 17
18.11	3	42.3	96.19	13 10	16.94:	1	49.8	97.81	8 08	16.39	10	57.4	99.45	3 23	17.18	5	7.1	1.54	3 09
18.82	2	42.6	96.25	8 04	17.73	3	49.9	97.83	5 56	18.49	3	57.9	99.55	2 10	18.61	2	7.2	1.56	10 07
18.18	3	42.7	96.26	6 46	18.52	3	50.1	97.86	10 04	17.95	3	58.1	99.61	14 32	15.94	10	7.2	1.57	8 45
17.30	7	42.9	96.30	13 44	17.63	3	50.1	97.86	4 44	18.16	3	58.4	99.65	7 44	18.07	3	7.3	1.59	2 40
17.67	3	42.9	96.31	10 26	17.68	3	50.2	97.88	7 57	17.96	3	58.5	99.67	9 05	18.73	1	7.8	1.68	1 01
16.56	10	43.4	96.42	14 06	18.88	1	50.4	97.93	2 45	18.34	3	58.6	99.69	5 08					
17.14	5	43.6	96.46	12 26	17.49	5	50.5	97.94	10 44	17.52	3	58.5	99.69	10 46					
18.47	3	43.9	96.53	12 49	18.15	3	50.5	97.96	13 31	17.22	5	58.8	99.75	10 13					
17.24	5	44.1	96.56	12 36	18.92	1	50.6	97.97	3 44	15.14	12	58.9	99.76	3 32					
18.63	2	44.1	96.56	13 43	18.92	1	50.9	98.02	9 58	17.09	7	58.9	99.77	8 02					
18.07	3	44.1	96.57	8 15	18.88	1	50.9	98.05	13 15	18.25	3	59.2	99.82	3 23					
18.88	1	44.2	96.58	0 00	18.92	1	51.1	98.07	4 12	17.88	3	59.4	99.88	2 14					
18.45	3	44.5	96.64	2 35	18.77	2	51.2	98.11	0 00	18.88	1	59.5	99.89	11 11					
18.78	1	45.0	96.75	2 20	18.31	3	51.5	98.16	2 34	18.34	2	59.6	99.93	14 44					
17.80	3	45.0	96.76	13 11	18.62	2	51.5	98.16	6 59	16.59	10	59.7	99.94	12 53					
15.46	12	45.1	96.78	5 57	16.92	9	51.5	98.17	2 51	18.19	3	60.0	0.01	3 49					
18.48	3	45.1	96.78	1 29	16.76	9	51.5	98.17	11 12	16.92	5	60.3	0.06	9 16					
18.88	1	45.2	96.80	14 37	17.45	3	51.5	98.17	12 35	18.31	3	60.3	0.07	12 23					
18.88	1	45.2	96.81	4 38	13.87	14	51.8	98.22	7 23	16.67	9	60.4	0.08	10 44					
15.58	11	45.2	96.81	10 43	18.73	1	51.8	98.23	7 09	18.83	1	60.5	0.11	12 09					
17.36	5	45.4	96.85	14 09	16.48	10	52.1	98.30	5 30	18.78	1	60.7	0.16	14 48					
18.44	3	45.5	96.86	9 39	18.41	3	52.3	98.34	11 11	18.28	3	60.7	0.17	4 04					
14.52	14	45.5	96.88	13 25	18.76	2	52.3	98.35	9 01	18.15	2	60.9	0.21	14 43					
18.97	1	45.7	96.90	7 59	16.87	9	52.6	98.41	5 09	14.06	15	61.0	0.23	13 05					
18.58	2	46.1	96.99	4 49	18.83	1	52.7	98.42	13 01	17.93	3	61.1	0.24	3 19					
16.12	10	46.1	97.01	12 35	18.88	1	52.9	98.46	7 16	17.66	5	61.3	0.29	1 22					
16.95	8	46.2	97.02	11 04	17.19	7	52.9	98.47	10 03	18.83	1	61.4	0.31	14 50					
16.80	9	46.6	97.11	1 04	18.21	3	52.9	98.47	13 03	18.48	2	61.6	0.35	3 59					
18.88	1	46.7	97.12	0 15	14.64	11	53.1	98.50	14 57	13.46	17	61.7	0.37	9 43					
16.91	8	46.8	97.15	10 19	15.31	12	53.3	98.55	12 57	16.49	10	61.8	0.39	9 27					
17.62	3	46.9	97.17	11 24	18.39	3	53.8	98.66	14 11	17.58	5	61.8	0.40	0 52					
18.36	3	47.8	97.36	1 31	18.83	1	53.8	98.67	0 09	16.89	7	61.8	0.41	9 13					
17.58	3	47.8	97.37	1 44	18.27	3	53.9	98.69	6 15	18.51	1	61.9	0.42	6 08					
18.97	1	47.9	97.38	9 05	17.83	3	54.0	98.71	13 31	17.67	3	62.1	0.47	9 00					
18.39	3	48.0	97.40	14 47	18.19	3	54.3	98.78	12 13	18.29	2	62.1	0.47	8 22					
17.74	3	48.1	97.42	5 42	18.45	3	54.6	98.83	1 47	17.92	3	62.2	0.49	0 48					
15.82	10	48.2	97.45	8 43	18.40	2	54.7	98.85	0 41	18.44	2	62.5	0.55	13 50					
18.66	2	48.2	97.46	11 12	17.86	3	54.8	98.87	4 08	17.56	5	62.6	0.57	0 56					
17.23	3	48.3	97.47	11 31	17.40	3	54.8	98.88	8 08	18.41	3	62.7	0.58	13 25					
18.97	1	48.3	97.47	9 01	18.23	3	54.9	98.90	3 51	18.58	2	62.7	0.58	6 31					
15.79	10	48.3	97.48	8 00	18.53	3	55.0	98.93	6 37	18.83	1	63.0	0.64	5 24					
18.21	3	48.4	97.51	13 13	17.44	3	55.4	99.00	4 05	18.83	1	63.0	0.65	5 58					
18.12	3	48.4	97.51	3 54	18.52	2	55.4	99.01	7 30	18.78	1	63.0	0.65	12 49					
18.64	2	48.5	97.53	2 58	17.11	6	55.6	99.06	5 20	18.83	1	63.1	0.68	9 22					
18.73	3	48.6	97.54	4 19	16.52	9	55.7	99.07	14 58	16.99	7	63.6	0.79	7 10					
17.83	3	48.7	97.56	11 44	18.88	1	55.8	99.09	11 21	18.41	3	64.0	0.86	10 11					
17.38	7	48.7	97.56	9 48	17.88	3	55.8	99.10	5 00	14.11	14	64.0	0.87	9 56					
17.45	5	48.7	97.57	6 33	15.49	11	55.8	99.11	10 02	17.30	7	64.1	0.89	2 40					
16.39	10	48.8	97.58	5 08	17.29	5	55.9	99.13	6 40	18.44	3	64.4	0.94	8 49					
18.09	3	49.0	97.62	0 48	18.54	3	56.0	99.14	9 16	18.38	3	64.4	0.96	10 03					
16.24	10	49.2	97.66	8 19	18.79	2	56.1	99.16	7 12	15.26	12	64.9	1.07	14 48					
18.82	2	49.3	97.68	0 40	18.83	1	56.1	99.16	2 14	15.08	12	65.5	1.18	14 40					
18.38	3	49.4	97.71	12 50	18.05	3	56.2	99.18	4 02	17.63	3	65.7	1.22	11 46					
15.51	11	49.6	97.75	2 57	15.01	12	56.3	99.20	9 35	16.70	9	65.9	1.27	11 53					
17.53	3	49.6	97.76	6 38	16.50	10	56.6	99.27	12 25	17.33	3	66.1	1.32	14 30					
15.68	11	49.7	97.77	9 28	18.26	2	56.8	99.30	3 18	18.88	1	66.2	1.34	6 01					

25 prec. + 94ˢ.4, + 3′ 26″

1*s*—60*s*					61*s*—120*s*					121*s*—180*s*					181*s*—240*s*					241*s*—291*s*				
Mag.		α 21^m	x	$y+10'$	Mag.		α 21^m	x	$y+70'$ $y+10'$	Mag.		α 22^m	x	$y+70'$ $y+10'$	Mag.		α 22^m	x	$y+70'$ $y+10'$	Mag.		α 23^m	x	$y+10'$
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
17.12	4	41	83.0	8.8	18.27	2	57	86.3	7.7	18.31	2	23	92.0	15.5	17.09	2	44	96.6	17.6	17.43	2	14	3.0	2.2
14.28	12	42	83.1	10.3	14.84	10	57	86.3	15.2	18.41	2	24	92.2	58.6	16.89	5	45	96.8	57.6	17.61	2	14	3.1	1.4
18.15	2	42	83.2	5.6	15.69	8	57	86.4	2.8	16.23	8	24	92.2	16.4	13.85	11	47	97.2	15.3	17.51	2	14	3.1	6.9
17.07	4	43	83.3	5.3	17.36	4	57	86.4	13.8	18.33	2	24	92.2	18.6	17.97	2	47	97.3	15.3	17.01	4	15	3.2	7.0
17.11	6	43	83.3	6.5	17.22	4	58	86.5	3.8	17.92	2	24	92.3	59.6	18.23	2	47	97.3	18.0	18.29	2	15	3.2	8.1
15.60	8	43	83.4	7.1	17.98	2	58	86.6	2.0	18.35	2	25	92.4	59.2	18.35	2	48	97.5	18.9	18.49	2	15	3.2	9.9
16.34	8	43	83.4	12.2	17.92	2	58	86.6	13.9	18.21	2	26	92.6	15.3	18.25	2	49	97.6	57.4	16.37	8	15	3.2	11.7
15.68	8	44	83.6	11.5	16.60	8	58	86.6	14.2	17.45	2	27	92.8	58.3	17.45	2	49	97.6	18.8	15.29	6	15	3.2	13.6
18.15	2	44	83.6	11.8	15.52	9	58	86.7	15.9	18.19	2	27	93.0	57.2	16.09	8	49	97.7	16.2	16.99	4	15	3.3	7.9
16.11	8	45	83.7	7.2	17.95	2	60	87.1	16.7	18.20	2	28	93.0	16.4	18.22	2	50	97.8	58.4	17.81	2	15	3.3	8.6
18.22	2	45	83.8	6.4	18.03	2	60	87.1	17.3	18.24	2	28	93.0	18.3	15.55	9	50	97.9	16.8	14.55	12	15	3.3	10.4
18.20	2	45	83.8	8.1	17.41	2	62	87.4	16.4	16.63	7	28	93.0	18.6	15.64	8	51	98.0	58.7	17.29	4	15	3.3	15.2
17.07	4	45	83.8	9.4	18.19	2	63	87.6	59.4	16.11	8	28	93.1	17.2	18.13	2	51	98.0	16.3	18.07	2	16	3.4	6.4
16.40	8	45	83.9	12.7	18.21	2	63	87.8	15.6	18.09	2	28	93.2	19.1	17.41	2	51	98.1	17.0	18.11	2	15	3.4	9.0
16.76	7	47	84.1	3.2	18.23	2	63	87.8	16.6	18.13	2	29	93.4	58.2	18.09	2	51	98.1	17.7	16.56	8	16	3.4	11.1
17.76	2	46	84.1	7.0	18.11	2	64	87.8	16.9	17.45	4	30	93.6	18.9	17.29	4	53	98.4	17.0	15.75	8	16	3.5	5.9
18.24	2	47	84.1	8.6	17.61	2	64	87.9	59.4	15.96	8	31	93.7	58.8	18.41	2	53	98.4	17.6	17.97	2	16	3.5	6.0
14.67	10	46	84.1	10.6	18.38	2	64	88.0	16.5	17.19	4	32	93.9	16.2	17.21	2	53	98.5	17.4	18.19	2	17	3.6	4.6
17.46	2	47	84.2	5.0	17.87	2	65	88.1	16.4	16.11	8	32	93.9	18.4	16.86	7	53	98.6	15.6	16.30	8	17	3.6	11.6
17.51	2	47	84.2	7.4	14.23	12	65	88.1	16.6	17.11	4	32	93.9	19.1	16.88	5	54	98.8	58.6	16.96	4	17	3.7	11.6
17.43	2	47	84.3	10.2	16.31	8	65	88.1	17.7	16.83	7	32	94.0	19.0	17.41	2	55	99.0	15.3	16.87	7	18	3.8	5.4
18.15	2	48	84.4	8.4	16.72	7	65	88.1	17.8	16.35	8	32	94.0	19.9	17.65	2	56	99.2	16.5	16.75	4	17	3.8	6.0
18.32	2	48	84.4	10.4	18.35	2	65	88.2	17.2	16.74	6	33	94.1	17.1	14.37	11	57	99.4	59.7	18.22	2	18	3.8	11.6
17.44	2	48	84.5	4.8	16.37	8	69	89.0	15.8	18.34	2	33	94.2	59.1	15.74	8	58	99.6	59.9	16.61	8	17	3.8	14.8
15.47	10	49	84.7	3.2	15.67	8	70	89.2	18.5	18.36	2	33	94.2	17.4	17.70	2	59	99.8	17.6	18.03	2	18	3.9	8.0
18.09	2	49	84.7	13.9	18.30	2	71	89.3	59.0	18.25	2	33	94.2	18.6	15.24	10	62	0.4	16.0	17.93	2	18	3.9	9.2
17.93	2	50	84.8	4.1	17.04	6	71	89.4	16.7	17.66	2	34	94.4	58.4	17.01	4	64	0.9	15.6	16.53	8	19	4.0	2.8
18.43	2	50	84.8	8.4	16.29	8	72	89.5	58.6	17.33	4	35	94.5	17.9	18.30	2	65	1.0	16.0	15.11:	10	18	4.0	6.6
17.80	2	49	84.8	10.2	16.96	4	71	89.5	18.1	16.82	7	35	94.6	17.9	18.15	2	65	1.1	59.8	15.16	10	19	4.0	10.4
18.37	2	50	84.8	13.2	17.22	4	72	89.6	59.3	16.66	5	35	94.7	16.4	18.11	2	68	1.8	9.4	17.66	2	19	4.0	13.2
17.00	6	50	84.9	3.3	13.94	13	72	89.6	16.3	18.41	2	35	94.7	18.6	17.05	4	69	1.8	11.2	15.17	10	19	4.1	8.7
15.00	10	50	84.9	7.4	17.95	2	72	89.6	18.0	18.43	2	36	94.8	16.2	18.29	2	68	1.8	13.0	17.31	2	19	4.2	12.2
17.97	2	51	85.0	13.6	18.39	2	73	89.8	59.0	14.26	12	36	94.8	18.8	13.06	14	69	1.9	6.0	18.31	2	20	4.3	13.4
17.23	4	51	85.1	2.6	18.10	2	73	89.8	15.1	18.35	2	37	95.0	57.9	14.91	10	69	1.9	10.6	16.94	4	20	4.4	3.6
18.29	2	51	85.2	7.0	17.11	6	73	89.9	15.8	18.27	2	37	95.1	17.0	18.33	2	69	1.9	14.2	17.23	4	21	4.5	3.5
15.34	10	52	85.3	2.7	17.04	4	73	89.9	17.2	18.25	2	37	95.1	17.6	18.39	2	70	2.1	0.7	16.87	7	21	4.5	4.4
15.07	10	52	85.3	6.3	17.03	4	73	89.9	18.0	16.55	8	37	95.1	18.2	15.69	8	70	2.1	11.0	16.54	8	21	4.6	4.8
17.25	4	52	85.3	14.1	17.35	2	73	89.9	18.8	18.31	2	38	95.2	18.2	18.44	2	70	2.1	12.6	17.29	2	22	4.6	11.8
14.24	12	52	85.4	7.6	18.24	2	74	90.0	17.6	15.87	8	38	95.3	19.4	17.11	4	70	2.2	2.3	17.23	2	22	4.8	4.6
18.05	2	52	85.4	10.1	18.07	2	75	90.3	16.7	17.01	4	39	95.5	18.8	15.18	10	70	2.2	4.6	18.19	2	22	4.8	7.0
15.94	8	53	85.6	10.4	17.07	6	76	90.4	16.8	17.36	2	40	95.6	57.8	17.01	4	70	2.2	10.8	17.10	2	23	5.0	11.4
17.49	4	53	85.6	11.2	18.35	2	76	90.4	17.6	18.39	2	40	95.6	19.3	17.14	4	70	2.2	11.1	18.31	2	24	5.1	5.8
17.39	2	53	85.6	12.0	16.00	8	77	90.6	16.7	15.38	9	41	95.8	19.7	17.08	2	70	2.2	13.0	15.99	2	24	5.1	8.7
16.95	4	53	85.6	14.0	17.47	2	77	90.6	18.1	17.92	2	41	95.9	57.7	18.35	2	70	2.2	14.3	15.02	10	24	5.2	8.7
18.31	2	54	85.7	5.9	17.05	6	77	90.6	18.4	18.21	2	41	95.9	16.8	17.43	2	71	2.3	5.7	17.08	4	24	5.3	5.4
15.47	9	54	85.8	12.1	17.41	4	77	90.7	16.8	17.16	2	42	96.0	59.2	17.79	2	71	2.3	8.7	17.25	2	25	5.3	11.0
14.50	11	54	85.8	14.9	15.99	8	77	90.7	17.4	17.00	4	41	96.0	15.8	17.51	2	71	2.3	13.4	17.84	2	25	5.4	10.0
18.29	2	54	85.8	15.9	14.80	11	78	90.8	59.8	17.03	5	42	96.1	16.8	18.41	2	71	2.4	10.6	18.11	2	25	5.5	8.2
17.04	6	54	85.8	16.2	17.27	4	77	90.8	15.6	18.39	2	42	96.1	18.8	18.03	2	71	2.4	13.2	15.71	8	25	5.5	9.6
17.99	2	55	85.9	4.8	16.09	8	78	90.9	58.8	17.03	2	42	96.2	57.2	18.17	2	72	2.5	10.9	18.43	2	25	5.5	11.0
17.19	4	55	85.9	5.0	18.10	2	78	90.9	17.7	18.29	2	42	96.2	58.1	15.24	10	72	2.6	9.2	16.99	2	26	5.6	8.8
18.39	2	55	85.9	8.1	16.25	8	78	91.0	58.6	17.98	2	42	96.2	18.6	18.20	2	72	2.6	9.4					
16.56	7	55	85.9	9.3	17.34	2	78	91.0	16.2	18.13	2	43	96.2	19.2	17.39	2	72	2.6	16.2					
17.79	2	55	85.9	15.2	18.23	2	80	91.3	15.3	17.79	2	43	96.3	57.8	16.95	4	73	2.8	1.2					
18.32	2	55	86.0	1.0	17.15	2	80	91.3	16.4	18.04	2	43	96.3	59.3	17.02	2	73	2.8	1.6					
15.82	8	55	86.0	10.7	15.19	10	80	91.3	18.0	18.11	2	43	96.3	18.4	16.63	8	73	2.8	4.8					
16.13	8	56	86.1	2.7	15.69	8	80	91.4	17.5	17.45	4	43	96.4	16.0	17.43	2	73	2.8	13.4					
18.43	2	56	86.2	7.0	18.29	2	80	91.4	17.6	16.93	4	43	96.4	17.0	14.32	11	73	2.8	13.6					
18.34	2	56	86.2	7.8	17.23	2	81	91.6	16.2	18.39	2	44	96.6	58.6	16.83	4	73	2.9	2.7					
17.87	2	57	86.3	1.4	17.00	4	81	91.6	19.4	16.15	8	44	96.6	15.5	15.18	10	73	2.9	8.1					

25 prec. + $94^{\mathrm{s}}.4$, + 3′ 26″

Area 49. Center for 1900: $5^h\ 24^m + 29°\ 40'$ ($15' \times 15'$)

1—60					61—120					121—180					181—240					241—300				
Mag.		α 23^m	x	$y+40'$	Mag.		α 23^m	x	$y+40'$	Mag.		α 23^m	x	$y+40'$	Mag.		α 23^m	x	$y+40'$	Mag.		α 23^m	x	$y+40'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
18.04	3	4.8	88.00	37 10	16.08	9	8.9	88.91	35 47	19.07	1	13.1	89.80	41 49	19.07	1	17.5	90.78	47 13	15.94	9	21.2	91.56	35 43
13.51	15	4.8	88.01	37 49	18.07	2	8.9	88.93	45 14	17.64	3	13.2	89.83	44 49	17.50	2	17.6	90.78	44 37	18.09	3	21.2	91.56	35 58
18.92	1	4.8	88.02	48 41	16.48	9	9.1	88.95	43 51	18.20	2	13.3	89.86	42 24	17.90	2	17.6	90.78	42 35	18.30	2	21.1	91.56	45 39
18.04	2	4.9	88.04	45 25	19.00	1	9.2	88.96	44 10	18.31	3	13.4	89.87	43 47	16.78	8	17.6	90.79	39 34	17.95	2	21.2	91.57	40 46
17.71	3	5.0	88.04	40 58	17.86	3	9.2	88.97	39 10	15.94	9	13.4	89.88	35 24	18.28	2	17.7	90.80	36 47	17.09	5	21.3	91.58	40 07
17.13	5	5.0	88.05	44 39	18.26	2	9.4	89.00	41 17	17.57	3	13.5	89.89	41 39	18.15	2	17.7	90.80	40 06	16.75	9	21.3	91.60	49 43
18.92	1	5.0	88.08	48 09	15.51	9	9.5	89.02	43 46	18.92	1	13.6	89.93	36 00	17.81	2	17.6	90.80	48 50	14.70	14	21.5	91.62	39 47
18.85	1	5.3	88.10	40 31	13.72	15	9.4	89.03	46 21	17.90	2	13.6	89.94	46 58	16.51	9	17.7	90.82	48 35	18.13	3	21.5	91.62	35 45
16.96	6	5.3	88.10	43 39	17.90	3	9.5	89.03	37 04	18.92	1	13.8	89.96	36 31	16.47	9	17.8	90.83	43 23	18.42	2	21.7	91.67	44 55
18.05	3	5.4	88.13	36 46	18.92	1	9.6	89.04	37 21	15.94:	2	13.9	89.98	41 14	18.43	1	17.9	90.86	41 33	16.85	8	21.7	91.67	44 20
17.96	3	5.5	88.14	37 32	16.63	8	9.8	89.08	40 36	18.12	2	14.0	90.00	39 28	18.24	2	17.9	90.86	42 04	16.85	8	21.6	91.68	47 07
18.03	3	5.6	88.17	39 32	18.19	2	9.8	89.08	44 22	17.26	4	13.9	90.01	49 51	18.92	1	17.9	90.86	35 36	17.27	5	21.7	91.71	47 22
18.37	2	5.4	88.17	48 11	18.30	2	9.9	89.10	36 38	17.75	3	14.1	90.04	49 03	18.14	2	18.0	90.90	48 00	18.85	1	21.9	91.72	41 10
17.98	3	5.6	88.17	40 00	17.72	3	10.0	89.12	35 46	17.80	2	14.1	90.05	46 50	14.01	14	18.0	90.91	49 19	18.16	2	21.9	91.73	44 15
18.85	1	5.6	88.18	41 31	16.27	8	10.1	89.14	44 09	18.30	3	14.3	90.07	44 28	16.30	9	18.2	90.95	46 51	18.03	3	21.9	91.73	38 15
17.76	3	5.8	88.23	41 23	18.22	2	10.1	89.15	42 04	17.98	3	14.4	90.08	38 01	18.10	2	18.3	90.95	39 44	19.13	1	21.9	91.75	45 29
18.22	2	5.8	88.24	45 58	15.52	9	10.2	89.17	44 38	19.07	1	14.3	90.08	45 32	18.16	2	18.4	90.96	44 12	18.09	3	22.1	91.77	36 31
18.92	1	5.8	88.24	48 51	18.92	1	10.1	89.18	48 45	17.83	3	14.4	90.10	47 28	18.32	2	18.4	90.96	44 38	19.13	1	22.3	91.83	46 59
17.05	5	6.0	88.27	43 18	19.00	1	10.5	89.24	44 22	17.25	5	14.7	90.16	38 33	17.38	4	18.4	90.96	43 51	18.12	2	22.5	91.84	39 53
18.13	3	6.2	88.31	41 09	18.92	1	10.5	89.24	38 34	17.90	3	14.6	90.16	46 59	14.13	11	18.5	90.98	43 42	18.24	2	22.5	91.87	48 35
18.40	2	6.2	88.32	46 45	18.30	1	10.5	89.24	35 20	18.22	2	14.9	90.22	48 59	17.49	1	18.5	90.98	42 36	17.39	5	22.6	91.88	46 06
18.92	1	6.3	88.33	38 28	18.45	2	10.5	89.26	49 05	19.00	1	15.1	90.24	39 31	18.30	2	18.6	91.01	41 01	18.46	2	22.7	91.90	44 01
18.38	2	6.3	88.34	45 59	18.03	3	10.7	89.29	48 22	19.07	1	15.2	90.27	41 08	17.88	2	18.7	91.04	46 18	18.50	1	22.7	91.91	42 15
19.00	1	6.3	88.34	49 21	18.43	1	10.8	89.31	41 19	18.77	1	15.2	90.27	41 50	18.08	2	18.9	91.06	40 01	17.38	3	22.7	91.91	41 41
17.77	3	6.3	88.36	49 09	16.65	8	10.9	89.33	37 02	18.85	1	15.3	90.28	35 50	18.24	2	18.9	91.07	41 36	17.50	3	22.7	91.91	37 27
17.58	3	6.6	88.40	36 36	18.29	2	10.8	89.33	47 50	17.22	3	15.4	90.32	46 40	16.74	8	18.9	91.08	47 12	16.31	9	22.8	91.92	35 26
17.35	3	6.6	88.40	36 01	19.00	1	10.9	89.34	46 08	18.13	3	15.6	90.34	36 30	16.70	8	19.1	91.11	42 32	17.74	3	22.8	91.93	42 42
14.39	14	6.6	88.40	40 57	16.37	9	11.0	89.37	48 55	17.30	3	15.5	90.34	46 30	17.35	3	19.2	91.13	38 33	17.71	2	22.9	91.94	40 07
17.69	1	6.6	88.41	35 13	15.63	8	11.2	89.39	40 18	16.63	8	15.5	90.35	49 54	16.36	8	19.1	91.13	47 14	18.40	2	22.9	91.96	49 30
18.19	2	6.8	88.44	42 30	13.25	15	11.2	89.39	43 04	18.04	2	15.5	90.35	49 13	15.59	8	19.1	91.13	46 47	16.96	7	23.0	91.97	45 45
18.40	2	6.9	88.46	44 43	17.82	2	11.2	89.39	44 45	17.08	5	15.5	90.36	45 11	19.07	1	19.3	91.15	41 26	18.29	2	23.0	91.97	45 37
18.92	1	6.9	88.47	41 47	19.07	1	11.2	89.40	44 07	17.89	3	15.5	90.36	49 25	18.24	2	19.4	91.19	48 24	17.83	2	23.0	91.97	48 00
16.74	7	7.0	88.48	44 31	17.78	2	11.1	89.41	45 49	18.44	2	15.5	90.36	48 28	17.99	2	19.4	91.19	49 19	18.44	2	23.1	91.99	47 53
15.71	9	7.3	88.55	42 12	17.95	3	11.2	89.41	38 15	18.22	3	15.6	90.36	38 51	17.40	2	19.6	91.23	41 44	18.09	3	23.1	91.99	36 14
18.10	2	7.2	88.55	49 46	18.34	2	11.4	89.44	36 50	17.27	4	15.6	90.38	49 58	18.77	1	19.7	91.24	43 03	18.85	1	23.3	92.03	44 28
18.54	2	7.2	88.56	45 20	18.16	3	11.7	89.50	39 05	19.07	1	15.7	90.40	49 44	18.22	2	19.8	91.26	39 03	17.80	2	23.4	92.07	46 56
18.02	2	7.4	88.56	43 04	17.02	6	11.6	89.51	49 08	14.04	14	15.8	90.41	42 21	16.91	5	19.8	91.26	43 28	19.13	1	23.6	92.09	42 13
18.36	2	7.4	88.57	38 46	18.92	1	11.8	89.53	37 51	18.85	1	16.0	90.45	37 45	16.81	8	19.7	91.26	45 02	17.08	5	23.6	92.09	40 32
16.74	8	7.3	88.58	49 03	14.86	11	11.9	89.54	42 44	18.05	3	16.0	90.45	36 20	17.72	3	19.9	91.28	38 21	16.81	7	23.7	92.11	36 35
17.77	3	7.6	88.59	36 56	18.42	2	12.1	89.59	40 26	18.92	1	16.1	90.47	36 43	18.22	2	19.8	91.29	48 09	18.26	2	23.7	92.13	49 49
17.89	3	7.6	88.60	38 41	16.68	9	12.1	89.59	39 35	19.07	1	16.0	90.47	49 19	18.34	2	19.9	91.29	39 51	17.03	5	23.8	92.13	36 53
17.36	3	7.6	88.61	38 17	18.00	2	12.0	89.59	48 10	13.11	14	16.4	90.52	44 01	12.91	15	20.0	91.30	41 48	17.60	2	24.1	92.20	44 22
17.29	5	7.8	88.66	43 18	17.73	2	12.0	89.59	48 06	18.22	2	16.5	90.55	42 46	18.71	1	20.1	91.33	41 16	18.16	2	24.1	92.21	38 17
18.22	1	7.7	88.66	48 33	18.09	3	12.2	89.60	38 36	18.85	1	16.5	90.55	36 40	16.22	7	20.0	91.33	45 46	18.45	2	24.2	92.22	44 38
18.01	3	7.7	88.67	47 13	16.26	9	12.1	89.61	49 08	17.94	3	16.5	90.55	36 22	17.40	3	20.2	91.34	38 34	17.64	2	24.2	92.23	41 34
16.26	9	7.9	88.67	36 54	18.92	1	12.2	89.63	48 51	18.20	2	16.5	90.55	38 51	19.07	1	20.2	91.34	40 30	18.09	2	24.1	92.23	45 09
18.04	3	8.1	88.73	38 35	17.80	2	12.3	89.63	43 36	15.88	9	16.6	90.56	38 09	18.16	2	20.2	91.36	40 20	18.63	1	24.4	92.26	35 59
17.77	3	8.2	88.74	38 25	19.00	1	12.4	89.64	39 42	17.90	2	16.7	90.58	40 35	18.29	2	20.2	91.36	44 43	17.93	2	24.5	92.30	45 13
18.92	1	8.2	88.75	43 01	18.02	3	12.4	89.66	38 40	18.71	1	16.8	90.60	37 44	18.61	2	20.2	91.36	47 26	18.40	2	24.6	92.31	44 11
19.00	1	8.3	88.76	42 42	18.19	2	12.4	89.68	45 47	18.92	1	16.8	90.60	39 38	19.13	1	20.2	91.37	45 07	17.69	3	24.6	92.33	35 44
15.37	11	8.3	88.76	39 53	18.77	1	12.5	89.70	49 18	16.62	8	16.9	90.63	43 39	17.83	3	20.3	91.37	37 59	18.36	1	24.8	92.34	42 37
17.59	3	8.4	88.78	36 06	18.24	2	12.5	89.70	45 39	17.74	3	16.8	90.63	48 46	17.89	1	20.3	91.38	43 43	18.92	1	24.8	92.35	35 36
18.30	1	8.6	88.82	35 08	17.31	5	12.5	89.71	46 50	17.76	2	17.0	90.64	41 43	16.47	9	20.6	91.44	41 30	16.76	9	24.7	92.35	48 48
17.17	5	8.7	88.84	43 15	17.89	3	12.6	89.71	37 05	18.24	3	17.0	90.65	38 14	18.22	3	20.6	91.44	36 19	18.13	2	24.8	92.36	43 25
18.77	1	8.6	88.84	45 22	18.85	1	12.7	89.73	35 26	17.00	5	17.0	90.66	43 12	18.16	2	20.7	91.46	43 28	16.89	8	25.2	92.44	49 22
18.22	2	8.6	88.85	47 01	15.09	12	12.7	89.74	49 57	16.92	5	17.0	90.66	44 45	14.41	14	20.7	91.47	42 35	14.58	12	25.2	92.45	46 42
17.99	3	8.7	88.86	37 10	15.98	9	12.8	89.76	48 31	16.06	9	17.1	90.68	44 14	14.11	15	20.7	91.48	48 07	18.08	2	25.2	92.46	48 04
16.30	9	8.8	88.88	40 17	18.85	1	12.8	89.76	47 00	17.35	5	17.2	90.69	37 39	17.38	2	20.7	91.50	40 35	18.46	2	25.2	92.46	45 30
17.81	3	8.8	88.90	45 40	18.32	3	12.9	89.77	39 46	18.92	1	17.2	90.70	37 11	17.68	3	21.0	91.52	38 28	19.07	1	25.3	92.46	39 33
17.17	5	8.9	88.90	41 36	18.10	2	12.9	89.77	35 48	19.07	1	17.2	90.70	42 18	17.80	3	21.0	91.53	36 21	18.06	2	25.3	92.47	47 07

25 prec. + $95\overset{s}{.}6$, + 1′ 20″

301—360					361—420					421—480					481—540					541—600				
Mag.		α 23^{m}	x	$y+40'$	Mag.		α 23^{m}	x	$y+40'$	Mag.		α 23^{m}	x	$y+40'$	Mag.		α 23^{m}	x	$y+40'$	Mag.		α 23^{m}	x	$y+40'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
16.92	7	25.3	92.48	47 04	12.11	16	29.8	93.45	39 48	16.13	9	33.3	94.20	35 38	14.98	11	37.5	95.11	39 23	18.54	2	41.9	96.06	41 13
17.81	2	25.4	92.51	49 24	18.06	3	29.9	93.46	35 30	17.90	2	33.5	94.24	45 10	17.74	3	37.5	95.11	36 50	18.13	3	41.9	96.07	36 11
13.96	13	25.7	92.54	40 09	18.40	2	29.8	93.46	45 17	16.84	8	33.5	94.24	40 56	16.50	8	37.6	95.13	41 49	17.49	5	42.0	96.10	49 03
16.94	5	25.8	92.56	35 09	18.20	2	29.8	93.46	47 51	18.43	1	33.5	94.25	43 30	19.07	1	37.7	95.14	43 52	15.68	9	42.2	96.14	49 31
17.88	2	25.8	92.57	37 55	19.13	1	29.9	93.48	48 09	18.30	2	33.6	94.28	49 50	18.46	2	37.9	95.19	42 56	18.22	2	42.3	96.14	37 31
18.40	2	25.9	92.58	44 57	18.68	2	30.0	93.49	48 32	19.13	1	33.8	94.30	44 15	18.75	2	37.8	95.19	46 29	19.07	1	42.3	96.14	36 02
19.13	1	25.8	92.59	45 54	18.17	3	30.0	93.49	35 50	18.53	2	33.9	94.33	41 23	19.00	1	37.9	95.21	36 11	16.48	9	42.3	96.16	38 19
13.06	11	25.9	92.60	49 20	18.10	2	30.1	93.50	40 14	15.85	9	33.8	94.33	46 59	17.36	5	38.0	95.23	38 59	18.47	2	42.4	96.18	45 52
18.92	1	26.0	92.61	36 00	18.32	2	30.0	93.51	48 39	18.72	2	34.2	94.41	45 26	18.42	2	38.1	95.24	48 44	18.46	2	42.5	96.21	48 35
16.50	9	26.1	92.62	42 58	18.68	2	30.2	93.52	42 32	15.12	12	34.3	94.42	37 48	17.64	3	38.2	95.26	38 36	18.71	1	42.7	96.24	36 46
18.12	2	26.1	92.65	49 37	19.07	1	30.2	93.52	37 35	18.07	3	34.3	94.43	35 28	19.20	1	38.2	95.26	43 34	15.17	9	42.7	96.26	47 59
17.94	2	26.2	92.66	41 57	17.85	3	30.3	93.54	37 05	18.77	1	34.4	94.45	39 21	17.82	2	38.2	95.26	40 13	17.86	2	42.7	96.26	45 34
16.36	9	26.2	92.66	42 40	18.24	2	30.2	93.55	49 24	19.07	1	34.4	94.45	49 10	18.10	2	38.2	95.27	40 34	18.77	1	42.9	96.29	37 15
17.72	2	26.3	92.70	47 53	16.98	8	30.2	93.55	45 24	17.16	6	34.4	94.46	46 20	18.26	2	38.4	95.30	44 30	18.10	2	43.0	96.30	42 37
17.73	2	26.6	92.74	38 25	17.45	4	30.4	93.56	44 24	18.44	2	34.4	94.46	47 53	18.04	2	38.4	95.30	43 46	17.69	3	43.0	96.31	43 22
17.94	3	26.7	92.76	35 46	17.49	2	30.3	93.57	45 15	19.20	1	34.8	94.52	43 46	19.07	1	38.3	95.30	49 46	18.32	2	43.0	96.31	41 53
18.92	1	26.8	92.78	35 05	17.56	3	30.5	93.59	39 07	16.67	9	34.9	94.54	39 39	14.10	14	38.5	95.32	43 14	15.41	9	43.0	96.31	42 10
16.70	9	26.7	92.79	48 40	15.46	9	30.5	93.59	41 22	17.79	2	34.9	94.55	44 58	17.96	2	38.5	95.32	41 33	17.32	5	43.1	96.32	43 09
15.64	9	27.0	92.83	43 41	18.60	2	30.5	93.60	47 14	17.74	2	35.0	94.56	38 43	18.92	1	38.6	95.35	39 56	15.87	9	43.2	96.36	40 11
18.44	2	27.0	92.84	48 51	17.27	5	30.6	93.61	44 06	19.13	1	34.9	94.56	49 38	15.95	8	38.6	95.35	41 53	19.27	1	43.4	96.40	42 36
15.59	9	27.1	92.86	43 55	18.03	2	30.7	93.65	46 59	17.72	3	34.9	94.56	45 20	14.56	12	38.6	95.36	45 02	17.45	3	43.6	96.44	45 20
17.32	5	27.2	92.87	38 55	17.68	2	30.8	93.65	44 55	17.89	2	35.0	94.57	41 52	18.14	2	38.7	95.37	37 31	18.58	2	43.8	96.48	47 15
17.89	2	27.2	92.89	46 08	17.85	3	30.8	93.65	36 29	17.58	4	35.2	94.61	44 40	18.64	2	38.7	95.37	44 24	17.72	3	43.8	96.48	47 30
18.85	1	27.2	92.89	45 32	16.80	8	30.9	93.68	40 50	18.06	2	35.2	94.61	41 10	19.13	1	38.7	95.38	38 52	18.40	2	43.8	96.49	41 32
16.27	9	27.3	92.90	36 44	15.54	9	31.0	93.69	44 03	18.79	2	35.3	94.62	44 54	18.12	2	38.8	95.41	38 15	18.40	3	43.9	96.50	41 02
18.40	2	27.3	92.91	45 10	16.82	8	31.3	93.76	43 30	18.44	2	35.2	94.63	45 47	16.94	7	38.8	95.41	48 41	16.40	9	43.9	96.51	40 52
18.08	2	27.4	92.93	45 46	16.85	9	31.3	93.76	38 21	18.36	2	35.3	94.63	43 47	18.64	2	38.9	95.43	46 24	17.05	3	43.9	96.51	35 13
17.49	4	27.5	92.95	44 36	15.12	11	31.3	93.77	43 43	17.84:	3	35.4	94.66	38 51	14.13	14	39.1	95.46	47 37	14.14	14	44.0	96.53	39 58
18.20	3	27.7	92.99	37 00	17.32	5	31.3	93.78	47 18	14.89	11	35.4	94.66	42 48	18.51	2	39.1	95.46	45 55	17.80	2	44.1	96.55	49 40
19.07	1	27.8	93.00	42 15	18.52	2	31.3	93.78	45 32	18.82	2	35.4	94.67	46 18	19.20	1	39.1	95.46	40 20	18.11	3	44.2	96.56	37 15
18.22	1	28.0	93.04	42 57	19.20	1	31.4	93.79	42 48	17.12	7	35.4	94.67	47 55	18.26	2	39.1	95.47	37 16	15.64	9	44.2	96.56	35 14
17.98	3	28.0	93.04	36 58	18.26	2	31.5	93.80	40 50	17.70	2	35.6	94.69	43 36	18.85	1	39.2	95.49	46 39	18.92	2	44.2	96.56	43 22
17.78	2	28.0	93.06	46 20	16.04	8	31.5	93.81	44 18	18.44	2	35.6	94.70	42 58	18.40	2	39.3	95.51	39 31	18.30	2	44.2	96.57	39 50
15.10	5	28.0	93.07	49 17	18.04	2	31.6	93.82	38 55	19.00	1	35.6	94.70	38 01	18.00	3	39.4	95.52	35 40	18.40	2	44.2	96.57	42 42
18.40	2	28.2	93.08	42 49	17.29	1	31.7	93.86	39 48	18.36	2	35.6	94.71	48 44	15.29	9	39.4	95.52	46 50	16.75	9	44.3	96.59	42 29
18.51	2	28.2	93.10	49 35	18.08	2	31.7	93.87	48 46	18.06	2	35.7	94.72	43 38	14.94	11	39.4	95.53	39 45	18.11	2	44.4	96.60	41 15
18.92	1	28.3	93.10	35 28	18.04	2	31.9	93.90	37 31	18.34	2	35.7	94.73	38 29	17.86	2	39.6	95.56	40 40	18.44	2	44.4	96.60	41 41
17.15	5	28.4	93.13	43 08	18.13	2	32.0	93.93	48 15	18.22	2	35.9	94.76	38 01	19.20	1	39.5	95.56	48 09	16.47	8	44.4	96.60	35 24
19.13	1	28.5	93.15	40 25	12.37w	10	32.1	93.94	41 49	19.07	1	36.0	94.79	48 48	18.24	2	39.6	95.57	38 28	18.26	2	44.3	96.60	49 55
18.44	2	28.5	93.16	39 44	16.25	9	32.1	93.94	35 24	18.50	2	36.0	94.80	47 10	9.90w	13	39.8	95.61	44 56	17.92	2	44.3	96.61	48 57
17.48	3	28.6	93.17	37 42	17.98	2	32.3	93.98	43 57	17.64	3	36.0	94.81	45 16	18.10	2	40.0	95.64	40 11	19.07	1	44.4	96.63	47 44
17.64	2	28.6	93.18	43 15	16.94	8	32.3	93.99	45 16	19.00	1	36.1	94.81	35 42	17.25	6	40.0	95.64	44 47	19.13	1	44.6	96.64	37 46
19.20	1	29.1	93.28	44 28	17.32	2	32.4	94.00	39 11	18.19	3	36.2	94.82	35 58	18.47	2	40.1	95.68	45 19	18.29	2	44.6	96.65	43 22
18.22	1	29.2	93.30	35 00	16.34	9	32.4	94.00	40 43	17.66	2	36.2	94.85	45 02	18.44	2	40.3	95.73	43 17	18.68	2	44.6	96.66	44 10
18.13	3	29.2	93.30	35 10	16.54	9	32.4	94.01	44 13	17.89	2	36.3	94.86	48 04	18.54	2	40.4	95.74	48 34	18.32	2	44.6	96.66	48 54
18.51	2	29.2	93.31	39 01	17.48	4	32.3	94.01	47 23	17.86	2	36.3	94.86	41 18	18.68	2	40.5	95.77	47 59	18.64	2	44.8	96.69	44 05
18.12	2	29.3	93.33	35 12	16.89	7	32.4	94.02	45 12	19.13	1	36.4	94.88	40 02	17.49	4	40.5	95.78	46 38	18.54	2	44.8	96.70	42 24
19.13	1	29.2	93.33	48 25	15.92	9	32.5	94.04	46 16	16.99	8	36.4	94.88	46 38	17.47	4	40.9	95.84	44 38	19.20	1	44.8	96.70	40 16
17.51	2	29.3	93.35	46 49	16.93	7	32.5	94.04	45 54	18.36	2	36.6	94.93	42 39	17.82	2	40.9	95.86	47 43	18.60	2	44.9	96.72	45 14
17.84	2	29.4	93.36	46 20	18.26	2	32.6	94.04	38 55	18.36	2	36.7	94.95	36 52	19.20	1	41.0	95.87	40 17	19.27	1	45.0	96.75	44 56
18.26	2	29.4	93.36	38 09	17.14	5	32.6	94.04	38 17	16.56	9	36.7	94.95	35 21	18.77	1	41.1	95.90	35 22	18.09	3	45.0	96.76	48 26
18.46	2	29.4	93.36	41 30	17.93	3	32.7	94.06	37 59	19.13	1	36.8	94.96	40 42	18.36	2	41.2	95.92	41 33	18.60	2	45.1	96.78	49 28
15.75	9	29.6	93.39	37 34	17.99	2	32.6	94.07	45 45	17.37	4	36.8	94.97	41 02	17.06	7	41.2	95.92	42 54	19.00	1	45.3	96.82	45 12
16.78	9	29.5	93.39	46 06	18.32	2	32.8	94.09	38 20	19.07	1	37.0	95.00	36 37	19.20	1	41.2	95.93	42 11	16.49	9	45.4	96.83	40 30
17.24	4	29.6	93.40	41 38	17.32	5	32.9	94.11	42 23	16.82	9	37.1	95.02	40 22	19.00	1	41.3	95.95	41 45	18.44	2	45.4	96.83	41 41
17.88	2	29.6	93.40	41 47	16.22	9	32.8	94.11	49 42	15.89	9	37.1	95.03	47 26	16.08	9	41.5	95.98	48 07	16.90	5	45.5	96.84	36 36
18.29	2	29.6	93.41	45 46	17.98	2	32.9	94.12	48 09	16.30	9	37.2	95.04	39 02	18.20	2	41.6	96.00	45 18	16.28	7	45.4	96.84	46 39
17.72	2	29.7	93.42	38 46	19.20	1	33.0	94.13	43 53	18.50	2	37.3	95.07	43 21	18.77	1	41.6	96.00	37 59	19.13	1	45.5	96.86	39 24
17.26	5	29.8	93.44	42 41	18.42	2	33.1	94.16	40 10	18.26	2	37.4	95.08	37 09	19.20	1	41.7	96.02	49 19	18.58	2	45.5	96.86	41 49
18.10	2	29.8	93.45	44 22	18.36	2	33.2	94.18	47 28	16.68	8	37.5	95.10	44 27	17.30	4	41.9	96.06	43 23	18.40	3	45.6	96.88	40 58

25 prec. + $95\overset{\mathrm{s}}{.}6$, + 1′ 20″

601—660				
Mag.		α 23m	x	y+40′
		s	′	′ ″
18.07	3	45.7	96.89	35 42
16.69	8	45.7	96.90	39 16
17.78	2	45.7	96.90	38 46
19.20	1	45.8	96.92	49 06
18.34	2	45.9	96.94	39 05
18.29	2	45.9	96.94	37 42
17.02	7	45.9	96.95	48 23
18.57	2	45.9	96.95	45 15
17.29	5	46.0	96.96	38 26
18.30	2	46.0	96.96	40 31
18.47	2	46.0	96.96	42 21
17.86	2	46.0	96.96	41 22
18.92	1	46.0	96.97	37 42
17.04	5	46.1	96.98	36 57
18.82	2	46.2	97.00	41 39
18.42	2	46.2	97.00	40 49
18.90	2	46.4	97.05	42 59
19.07	1	46.5	97.06	41 29
19.07	1	46.4	97.06	47 26
18.09	3	46.6	97.09	36 31
18.46	2	46.6	97.09	48 57
18.40	2	46.6	97.10	47 04
14.78	13	46.7	97.11	42 18
17.99	2	46.8	97.12	36 42
17.02	4	46.9	97.14	35 07
11.62	16	46.9	97.16	36 07
18.02	2	46.9	97.16	41 41
17.61	3	47.0	97.18	44 05
18.68	2	47.1	97.19	44 52
17.56	3	47.3	97.24	48 08
17.14	7	47.3	97.24	42 40
18.54	2	47.4	97.26	41 39
17.58	2	47.4	97.27	41 05
19.20	1	47.5	97.28	49 23
19.13	1	47.5	97.29	39 00
19.00	1	47.6	97.30	43 27
17.05	5	47.6	97.30	36 36
16.77	8	47.6	97.31	39 42
17.77	3	47.8	97.34	38 22
18.50	2	48.0	97.40	48 13
18.16	2	48.0	97.40	41 54
16.62	8	48.2	97.44	36 04
19.27	1	48.3	97.46	41 14
19.07	1	48.3	97.47	36 22
17.40	5	48.5	97.50	39 01
18.46	2	48.7	97.54	48 43
18.36	2	48.7	97.55	38 15
19.35	1	48.8	97.56	44 25
18.42	2	48.8	97.56	41 41
17.91	3	48.9	97.58	37 51
18.17	2	49.1	97.62	37 21
16.74	4	49.1	97.64	49 00
18.42	2	49.1	97.65	49 12
19.35	1	49.2	97.67	46 39
17.65	5	49.4	97.70	42 42
18.16	2	49.4	97.71	38 00
17.97	3	49.5	97.72	37 45
16.48	9	49.5	97.72	41 54
19.20	1	49.7	97.76	49 04
18.34	2	49.7	97.76	49 48

661—720				
Mag.		α 23m	x	y+40′
		s	′	′ ″
17.72	2	49.8	97.78	46 23
17.68	3	49.9	97.80	35 03
16.96	5	50.0	97.82	35 21
18.40	2	50.0	97.83	48 28
18.58	2	50.1	97.84	44 15
17.92	3	50.1	97.84	38 57
17.80	3	50.1	97.84	38 39
18.14	2	50.1	97.84	36 02
18.02	3	50.3	97.90	36 36
17.96	2	50.3	97.91	49 14
18.42	2	50.3	97.91	42 01
19.00	1	50.4	97.92	42 21
19.07	1	50.4	97.93	39 03
19.27	1	50.6	97.96	41 13
19.13	1	50.6	97.96	38 36
17.90	3	50.6	97.96	38 15
18.08	3	50.6	97.96	35 33
18.06	2	50.7	97.99	48 43
16.26	9	50.7	97.99	45 21
18.30	2	50.9	98.03	49 46
18.30	2	51.0	98.04	49 04
19.35	1	51.4	98.15	46 45
19.13	1	51.5	98.15	43 08
19.35	1	51.6	98.18	42 59
17.96	3	51.7	98.20	49 29
16.63	9	51.8	98.21	41 35
17.84	2	51.8	98.22	46 59
18.03	3	52.0	98.23	35 41
18.17	3	52.1	98.26	36 54
17.05	7	52.0	98.26	49 05
16.29	9	52.2	98.28	38 44
18.46	2	52.2	98.28	44 41
18.40	2	52.2	98.30	48 57
17.86	2	52.2	98.30	46 30
18.09	3	52.3	98.33	35 50
18.22	2	52.4	98.36	38 29
18.63	1	52.4	98.36	48 55
17.79	2	52.5	98.37	40 33
17.86	2	52.5	98.38	48 18
18.42	2	52.5	98.38	37 41
17.97	3	52.7	98.43	38 27
19.42	1	52.9	98.47	43 58
18.02	2	53.2	98.52	44 26
16.39	8	53.2	98.53	37 07
19.35	1	53.3	98.54	44 19
16.67	9	53.3	98.54	37 54
16.14	9	53.5	98.58	39 19
18.06	2	53.4	98.58	46 59
17.76	3	53.5	98.59	38 19
18.77	1	53.6	98.60	36 21
15.84	9	53.5	98.60	46 52
17.87	3	53.8	98.64	36 41
18.01	2	53.8	98.65	39 58
18.34	2	53.8	98.66	36 20
19.07	1	53.8	98.66	35 30
17.89	3	53.9	98.68	35 08
18.71	1	54.0	98.69	41 13
18.18	2	53.9	98.69	47 43
17.76	3	54.2	98.74	42 12
18.36	2	54.2	98.75	42 08

721—780				
Mag.		α 23m	x	y+40′
		s	′	′ ″
18.64	2	54.2	98.75	44 35
17.74	3	54.2	98.75	35 58
18.40	2	54.3	98.77	44 14
18.19	2	54.3	98.77	45 33
17.72	2	54.3	98.77	46 18
18.60	2	54.4	98.79	45 12
17.35	5	54.4	98.79	49 20
19.20	1	54.7	98.84	47 48
17.86	3	54.7	98.86	35 01
18.57	2	54.8	98.87	47 02
19.35	1	54.9	98.90	43 12
18.07	3	54.9	98.91	35 12
17.07	5	55.1	98.95	44 02
19.00	1	55.2	98.96	43 58
18.09	1	55.3	98.99	40 43
17.98	2	55.4	99.00	42 52
19.35	1	55.5	99.02	46 19
18.30	2	55.6	99.04	39 41
18.24	2	55.7	99.07	48 11
19.07	1	55.8	99.09	43 16
17.60	3	55.8	99.09	38 40
18.12	2	55.9	99.11	40 20
16.47	9	56.1	99.15	35 39
16.78	9	56.2	99.18	48 58
18.34	2	56.2	99.18	39 58
18.19	3	56.3	99.20	36 35
18.03	2	56.3	99.21	43 50
15.71	9	56.5	99.25	45 17
19.00	1	56.6	99.26	48 30
17.71	3	56.6	99.26	38 01
17.79	3	56.8	99.30	49 55
18.46	2	56.8	99.30	45 52
18.26	2	56.8	99.30	39 22
15.42	9	56.8	99.30	36 14
16.20	9	56.8	99.31	36 29
18.30	2	56.9	99.32	49 48
18.36	2	56.9	99.33	45 13
18.71	2	56.9	99.33	42 31
19.07	1	57.0	99.35	36 21
19.35	1	57.1	99.37	42 52
15.84	9	57.1	99.37	40 05
18.63	1	57.1	99.37	47 39
18.16	2	57.1	99.38	45 19
19.07	1	57.2	99.41	35 20
16.32	9	57.3	99.42	35 41
18.32	2	57.3	99.43	42 57
18.10	3	57.4	99.44	48 59
19.07	1	57.4	99.45	40 19
19.20	1	57.5	99.46	45 29
17.25	3	57.5	99.46	39 17
18.08	2	57.5	99.46	38 34
16.36	9	57.5	99.47	40 43
18.20	2	57.7	99.50	48 40
17.08	4	57.7	99.51	41 15
18.50	2	57.8	99.53	43 51
15.91	9	57.9	99.54	38 18
17.46	5	57.9	99.55	45 59
19.00	1	58.0	99.56	45 07
19.13	1	58.0	99.56	38 39
18.18	2	58.0	99.56	40 48

781—840				
Mag.		α 23m	x	y+40′
		s	′	′ ″
14.26	15	58.2	99.60	44 53
19.07	1	58.2	99.60	36 59
18.46	2	58.3	99.63	48 24
17.82	3	58.4	99.64	36 25
14.03	14	58.4	99.66	49 05
16.68	9	58.6	99.70	43 16
14.65	12	58.6	99.70	49 28
19.13	1	58.6	99.71	39 19
16.15	9	58.7	99.72	38 17
17.40	2	58.8	99.74	36 30
18.38	3	58.8	99.75	43 05
18.17	2	58.9	99.76	35 36
17.93	3	58.9	99.77	37 49
19.07	1	59.0	99.78	35 18
17.79	2	59.0	99.79	46 54
18.85	1	59.1	99.80	40 04
15.02	12	59.1	99.80	42 55
16.58	9	59.1	99.80	43 54
17.65	2	59.2	99.82	48 32
17.88	2	59.2	99.83	44 41
17.98	2	59.3	99.85	39 33
18.36	2	59.4	99.87	38 19
17.88	3	59.4	99.87	49 52
18.00	3	59.6	99.93	35 52
17.37	5	59.8	99.96	42 27
12.06w	15	59.8	99.96	37 24
19.20	1	60.0	0.00	45 03
18.28	2	60.1	0.02	44 52
19.27	1	60.1	0.03	48 57
18.85	1	60.2	0.04	36 06
18.08	2	60.2	0.04	41 19
19.27	1	60.2	0.05	42 01
19.35	1	60.3	0.06	42 22
18.40	2	60.3	0.06	46 49
13.75	16	60.6	0.13	39 24
18.40	2	60.7	0.14	46 22
18.92	1	60.7	0.14	40 58
17.56	3	60.7	0.16	42 11
18.26	2	60.7	0.16	48 09
18.40	2	60.8	0.18	44 37
15.37	10	60.8	0.18	41 36
17.92	2	60.9	0.19	41 55
19.00	1	60.9	0.20	35 00
18.13	3	61.0	0.23	36 48
19.42	1	61.0	0.23	45 50
17.08	7	61.1	0.25	44 32
16.17	9	61.2	0.26	37 19
16.54	9	61.3	0.28	41 53
14.87	12	61.3	0.28	48 25
19.35	1	61.3	0.29	46 05
18.92	1	61.6	0.35	48 02
18.44	2	61.6	0.35	42 13
19.35	1	61.6	0.36	43 02
17.86	3	61.6	0.36	39 30
18.46	2	61.7	0.38	43 51
18.30	2	61.7	0.38	44 21
18.43	1	61.7	0.38	47 50
17.11	5	61.8	0.39	48 17
16.91	5	61.8	0.40	45 32
19.35	1	61.8	0.41	45 43

841—900				
Mag.		α 24m	x	y+40′
		s	′	′ ″
18.10	2	1.9	0.43	44 19
18.26	2	2.0	0.44	47 36
17.70	2	2.1	0.47	44 11
15.19	11	2.2	0.48	42 16
17.95	3	2.2	0.48	36 19
18.34	2	2.3	0.50	43 50
18.18	2	2.4	0.53	41 38
18.04	2	2.5	0.54	45 09
17.92	2	2.6	0.56	47 15
18.30	2	2.6	0.56	41 50
18.03	3	2.6	0.56	39 42
18.40	2	2.8	0.60	42 17
17.98	3	2.8	0.61	36 25
18.71	1	2.9	0.62	47 35
13.87*	2	2.9	0.63	49 11
17.92	2	2.9	0.63	41 20
19.35	1	3.0	0.64	43 46
18.26	2	3.0	0.64	48 42
18.36	2	3.0	0.65	44 10
16.59	1	3.1	0.67	49 09
19.27	1	3.2	0.70	47 53
19.13	1	3.2	0.70	37 27
17.88	3	3.2	0.70	42 12
16.34	9	3.4	0.74	36 01
14.68	13	3.4	0.75	49 02
13.99	14	3.5	0.77	41 24
17.86	3	3.6	0.78	41 04
18.37	2	3.6	0.78	40 09
16.93	7	3.6	0.79	48 40
18.22	1	3.7	0.80	49 11
19.00	1	3.7	0.80	36 37
18.30	1	3.7	0.80	40 11
18.18	2	3.8	0.83	42 32
18.71?	1	3.9	0.86	41 19
17.34	4	3.9	0.86	42 02
18.34	2	3.9	0.86	45 06
17.29	5	3.9	0.86	47 53
17.54	3	4.1	0.89	42 56
18.12	2	4.1	0.89	49 39
14.94	12	4.1	0.90	37 13
18.18	2	4.1	0.91	41 00
13.63	14	4.2	0.92	49 33
17.86	2	4.3	0.94	43 37
17.79	3	4.4	0.97	44 51
17.72	3	4.4	0.97	46 08
18.64	2	4.5	0.99	49 46
19.27	1	4.6	1.00	47 34
19.27	1	4.6	1.01	41 56
18.06	2	4.7	1.02	40 23
19.27	1	4.7	1.03	47 47
16.82	5	4.8	1.04	37 14
17.39	3	4.8	1.04	42 34
19.27	1	4.8	1.04	41 31
18.72	2	4.8	1.05	43 41
18.32	2	4.9	1.07	45 01
18.92	1	5.0	1.08	40 13
18.02	2	5.2	1.12	45 26
18.32	2	5.3	1.14	49 25
17.96	2	5.3	1.16	48 19
15.86	8	5.3	1.16	37 22

25 prec. + 95.6s, + 1′ 18″

901—920

Mag.		α 24^m	x	y+40′
		s	′	′ ″
18.47	2	5.4	1.17	43 18
16.61	9	5.5	1.19	44 21
18.24	2	5.5	1.21	38 00
18.21	3	5.7	1.24	40 35
18.02	3	5.8	1.27	37 47
18.30	2	6.0	1.30	47 28
18.26	2	6.0	1.30	41 33
19.07	1	6.1	1.32	36 46
18.00	2	6.2	1.35	48 10
19.35	1	6.3	1.36	45 18
18.36	2	6.3	1.37	49 46
15.80	8	6.3	1.38	42 39
16.58	9	6.4	1.40	43 26
17.80	3	6.6	1.44	40 16
18.48	2	6.6	1.44	41 35
18.23	3	6.6	1.45	39 01
15.08	11	6.7	1.47	38 38
18.11	2	6.8	1.47	45 30
19.27	1	6.9	1.49	46 21
16.19	9	6.8	1.49	36 30

921—940

Mag.		α 24^m	x	y+40′
		s	′	′ ″
19.13	1	6.9	1.50	38 14
13.77	14	6.9	1.50	36 18
18.14	3	7.0	1.52	49 23
18.19	2	7.0	1.53	45 00
17.95	3	7.1	1.54	37 56
18.92	1	7.1	1.55	35 04
17.23	3	7.1	1.55	48 14
18.03	3	7.3	1.58	35 40
18.26	2	7.4	1.60	41 19
19.35	1	7.6	1.65	45 15
17.10	4	7.6	1.66	45 40
16.92	5	7.6	1.66	39 13
17.29	5	7.7	1.68	44 39
17.98	3	7.7	1.68	40 00
18.33	3	7.7	1.68	47 22
17.94	3	7.8	1.69	42 11
15.91	8	7.8	1.70	49 49
15.78	9	7.8	1.71	47 27
18.28	2	8.0	1.74	42 55
18.05	3	8.1	1.77	41 42

941—960

Mag.		α 24^m	x	y+40′
		s	′	′ ″
19.27	1	8.6	1.86	47 06
19.07	1	8.6	1.88	37 14
18.38	2	9.0	1.97	43 33
19.13	1	9.2	2.01	39 42
17.68	3	9.3	2.02	43 27
19.13	1	9.3	2.03	38 20
17.07	5	9.3	2.03	38 41
18.85	1	9.5	2.06	36 21
17.62	3	9.7	2.10	36 04
18.43	1	9.7	2.10	36 50
18.08	2	9.8	2.13	41 33
16.73	5	9.9	2.15	39 28
18.29	2	9.9	2.16	45 34
18.33	2	9.9	2.16	42 44
18.28	2	10.0	2.17	43 42
17.98	3	10.0	2.17	39 26
19.07	1	10.0	2.18	45 40
18.92	1	10.1	2.19	48 32
18.11	3	10.3	2.24	38 14
18.11	3	10.5	2.28	37 22

961—980

Mag.		α 24^m	x	y+40′
		s	′	′ ″
17.79	3	10.5	2.28	37 00
16.87	5	10.5	2.29	38 59
14.98	12	10.6	2.31	44 41
17.29	5	10.9	2.38	41 20
16.64	9	11.2	2.42	46 44
18.32	2	11.3	2.44	46 20
19.20	1	11.3	2.47	41 37
18.63	1	11.4	2.48	36 17
19.20	1	11.4	2.49	40 52
17.80	3	11.5	2.50	40 38
18.26	2	11.6	2.53	41 06
17.99	3	11.7	2.54	45 10
16.87	8	12.0	2.60	44 21
18.00	3	12.0	2.60	39 54
16.61	9	12.3	2.67	46 04
17.74	3	12.3	2.67	47 19
19.20	1	12.3	2.68	47 55
12.46w	13	12.4	2.70	39 51
17.71	3	12.4	2.71	39 42
18.04	3	12.5	2.73	37 45

981—995

Mag.		α 24^m	x	y+40′
		s	′	′ ″
19.13	1	12.6	2.74	49 59
17.26	3	12.7	2.76	41 55
19.20	1	12.7	2.77	43 05
17.98	3	12.8	2.78	37 01
18.56	1	13.1	2.84	38 10
19.20	1	13.1	2.84	42 06
18.21	3	13.1	2.86	40 37
17.02	3	13.3	2.89	36 15
17.84	3	13.3	2.90	41 47
17.84	3	13.3	2.90	41 10
17.82	3	13.6	2.96	49 22
17.96	3	13.6	2.97	41 58
18.29	2	13.6	2.97	44 49
18.26	2	13.7	2.98	43 31
19.13	1	13.8	3.00	37 30

25 prec. + 95ˢ.6, + 1′ 18″

5^h Area 49. Supplementary Stars + 29°

1s—30s

Mag.		α 22^m	x	y+40′
		s	′	′
17.82	2	48	84.3	43.4
17.78	2	48	84.3	44.7
15.84	6	48	84.3	45.5
15.73	5	48	84.4	42.7
17.46	2	49	84.5	43.3
17.65	2	49	84.5	44.2
17.63	2	50	84.7	44.6
17.70	2	49	84.7	48.4
17.10	4	50	84.8	44.6
17.69	2	50	84.9	44.3
16.98	4	51	85.0	41.8
17.89	2	51	85.0	43.3
17.82	2	51	85.0	48.9
16.68	4	51	85.1	40.7
13.41	12	51	85.1	43.4
17.56	2	52	85.2	40.6
17.64	2	52	85.2	42.2
17.69	2	52	85.2	42.7
17.80	2	52	85.2	47.0
17.82	2	52	85.3	45.4
17.65	2	52	85.3	46.6
17.89	2	52	85.3	47.6
17.89	2	53	85.4	40.6
17.89	2	53	85.4	41.3
16.43	7	53	85.4	42.4
14.92	11	53	85.4	42.7
15.45	8	53	85.4	48.2
17.65	2	53	85.4	49.6
16.55	7	53	85.4	50.0
14.12	12	53	85.4	50.1

31s—60s

Mag.		α 22^m	x	y+40′
		s	′	′
17.89	2	53	85.5	41.3
16.50	7	53	85.6	39.6
13.46	13	54	85.6	41.6
17.78	2	53	85.6	42.8
16.98	3	54	85.6	47.6
17.35	2	55	85.8	41.2
17.01	3	54	85.8	46.1
17.06	4	54	85.8	48.8
17.50	2	55	85.9	40.0
17.89	2	55	85.9	41.3
17.96	2	55	85.9	45.4
17.92	2	55	86.0	41.8
14.51	12	55	86.0	42.4
17.89	2	56	86.1	39.2
17.80	2	56	86.1	41.2
17.86	2	56	86.1	47.0
16.63	7	56	86.2	42.8
17.79	2	56	86.2	47.4
17.16	4	56	86.2	48.2
17.89	2	56	86.2	49.4
17.89	2	56	86.2	50.6
17.87	2	57	86.3	40.6
16.37	7	57	86.3	43.3
16.20	7	57	86.4	41.0
17.76	2	57	86.4	47.9
17.82	2	58	86.5	43.4
15.82	7	58	86.5	49.4
17.82	2	58	86.6	38.2
17.63	2	58	86.6	39.5
18.02	2	59	86.6	42.4

61s—90s

Mag.		α 22^m	x	y+40′
		s	′	′
17.97	2	58	86.6	43.6
17.78	2	58	86.6	44.3
18.00	2	58	86.6	44.4
17.12	4	58	86.6	44.7
18.00	2	58	86.6	47.3
16.34	7	58	86.6	47.8
16.90	4	59	86.7	40.6
16.51	7	59	86.7	47.6
15.21	10	59	86.7	49.6
13.77	14	59	86.8	41.7
17.43	2	59	86.8	43.1
16.99	4	59	86.8	46.7
17.96	2	59	86.8	49.6
17.93	2	60	86.9	49.1
16.81	4	60	86.9	51.3
18.02	2	60	87.0	44.8
16.78	4	60	87.0	46.4
16.86	6	60	87.0	50.1
17.92	2	60	87.0	50.4
17.06	4	60	87.0	51.6
18.04	2	61	87.1	41.1
16.98	4	61	87.1	42.4
17.36	2	61	87.2	42.7
16.06	7	61	87.2	44.6
17.05	4	61	87.2	47.2
17.65	2	61	87.2	48.4
17.98	2	61	87.2	49.1
17.84	2	62	87.3	37.4
17.57	2	62	87.3	37.5
17.94	2	62	87.3	39.3

91s—120s

Mag.		α 23^m	x	y+40′
		s	′	′
17.98	2	2	87.3	40.0
17.97	2	2	87.3	41.5
17.50	2	1	87.3	45.6
17.82	2	2	87.4	37.3
16.79	7	2	87.4	43.0
16.10	7	2	87.4	46.0
17.95	2	2	87.4	48.4
16.39	7	2	87.4	48.9
17.96	2	3	87.6	39.8
17.70	2	3	87.6	40.2
18.08	2	3	87.6	44.1
16.48	7	3	87.6	48.2
17.96	2	3	87.6	49.1
17.91	2	3	87.7	37.4
14.65	12	3	87.7	38.9
18.08	2	3	87.7	42.0
15.89	7	3	87.7	44.2
17.91	2	4	87.8	37.3
18.10	2	4	87.8	43.2
16.01	7	4	87.8	44.4
17.95	2	4	87.9	39.5
17.98	2	4	87.9	49.2
15.53	7	4	87.9	51.4
18.08	2	5	88.0	42.4
15.75	7	4	88.0	45.7
16.78	4	4	88.0	46.8
16.68	6	5	88.2	51.0
17.14	4	6	88.3	50.7
16.95	4	6	88.3	52.2
15.97	7	7	88.5	52.4

121s—150s

Mag.		α 23^m	x	y+40′
		s	′	′
14.69	12	7	88.6	50.9
17.92	2	7	88.6	52.7
16.29	7	8	88.7	53.2
16.49	6	8	88.8	52.4
17.80	2	9	88.9	51.0
17.07	4	9	88.9	53.0
18.00	2	9	89.0	51.2
17.82	2	9	89.0	51.9
17.34	2	9	89.0	53.1
16.86	6	10	89.1	50.8
16.76	6	10	89.1	52.6
16.49	7	10	89.2	50.4
17.87	2	10	89.2	53.6
17.89	2	12	89.5	53.8
15.46	8	12	89.6	51.4
17.17	4	12	89.6	51.6
17.91	2	13	89.8	51.3
17.14	2	13	89.8	51.5
17.82	2	13	89.8	51.6
17.78	2	13	89.8	52.7
17.84	2	13	89.8	54.4
17.82	2	13	89.9	54.3
16.82	4	14	90.1	52.4
16.40	7	15	90.2	53.1
14.49	12	15	90.2	53.8
17.82	2	15	90.2	54.7
17.82	2	15	90.3	51.6
16.08	7	15	90.3	52.8
17.94	2	16	90.4	50.0
16.47	7	16	90.5	51.2

25 prec. + 95ˢ.6, + 1′ 20′

Area 49. Supplementary Stars

151s—210s					211s—270s					271s—330s					331s—390s					391s—450s				
Mag.		α 23^{m}	x	$y+40'$	Mag.		α 23^{m}	x	$y+40'$	Mag.		α 23^{m}	x	$y+40'$	Mag.		α 24^{m}	x	$y+40'$	Mag.		α 24^{m}	x	$y+40'$
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
16.64	7	16	90.5	51.6	17.16	3	30	93.6	52.3	17.58	2	47	97.1	51.0	17.92	2	5	1.1	50.6	16.93	4	19	4.0	46.0
13.90	12	17	90.6	51.9	16.47	7	31	93.7	52.0	16.48	7	47	97.1	51.4	18.02	2	6	1.2	52.2	17.30	2	19	4.1	37.4
17.82	2	17	90.8	50.6	16.82	7	31	93.8	50.8	18.04	2	47	97.1	53.6	16.25	7	6	1.2	53.0	16.60	7	19	4.1	47.4
15.67:	5	18	90.8	50.7	16.29	7	31	93.8	52.8	17.92	2	47	97.2	55.6	17.84	2	5	1.2	53.4	17.96	2	19	4.1	49.3
16.17	7	18	90.8	51.1	17.93	2	31	93.8	54.7	17.85	2	48	97.4	51.7	17.79	2	7	1.4	51.9	16.89	4	19	4.1	49.6
18.04	2	17	90.8	52.2	17.89	2	32	93.9	34.2	18.10	2	48	97.4	52.9	15.93	7	6	1.4	54.4	16.52	7	19	4.1	52.2
16.96	4	17	90.8	54.6	16.55	7	32	93.9	34.4	17.92	2	48	97.4	54.4	11.45	13	7	1.5	50.4	17.42	2	19	4.2	43.6
17.84	2	18	90.8	54.7	17.60	2	32	94.0	33.8	17.89	2	49	97.6	34.5	15.62	7	7	1.6	51.8	16.65	6	19	4.2	44.5
16.51	7	19	91.0	34.8	16.84	4	32	94.0	53.3	17.89	2	49	97.6	34.7	17.87	2	7	1.6	52.9	16.86	3	19	4.2	49.4
16.48	7	18	91.0	51.2	16.26	7	32	94.0	55.8	17.96	2	49	97.6	54.3	16.65	6	7	1.6	54.4	17.89	2	20	4.2	50.4
18.04	2	19	91.0	51.4	17.30	4	33	94.1	52.1	17.21	4	50	97.8	51.6	16.41	7	9	1.9	53.9	17.84	2	19	4.2	50.7
14.95	10	18	91.0	52.2	17.10	4	33	94.1	52.3	17.29	4	50	97.8	51.9	15.66	6	9	1.9	54.3	17.92	2	19	4.2	50.8
18.04	2	18	91.0	52.3	16.32	7	33	94.2	33.8	16.01	7	50	97.8	55.3	17.52	2	9	2.0	53.6	15.36	8	20	4.3	41.0
17.53	2	19	91.1	54.4	14.93	10	33	94.2	52.2	16.62	7	50	97.9	34.2	14.70	12	9	2.0	53.8	17.12	4	20	4.3	43.3
16.91	3	19	91.2	54.2	17.58	2	33	94.2	55.5	18.12	2	50	97.9	52.2	18.00	2	12	2.6	51.2	17.76	2	20	4.3	48.4
16.68	7	20	91.3	51.6	14.76	12	34	94.3	34.3	16.45	7	50	97.9	55.6	17.80	2	13	2.8	51.0	17.82	2	20	4.3	50.6
17.92	2	20	91.4	54.7	18.04	2	34	94.3	53.2	16.14	7	52	98.2	50.5	17.92	2	13	2.9	52.6	16.49	7	20	4.4	39.2
16.87	3	21	91.5	34.7	17.74	2	34	94.4	52.9	16.50	7	52	98.2	51.4	17.31	2	14	3.0	37.0	17.98	2	20	4.4	41.6
16.79	6	21	91.6	50.8	15.41	7	35	94.5	50.6	17.96	2	52	98.2	54.3	15.78	7	14	3.0	38.4	17.80	2	21	4.6	38.6
13.22	14	21	91.6	52.4	17.06	4	35	94.5	52.8	14.76	12	52	98.3	53.3	16.82	4	14	3.0	50.4	16.59	7	21	4.6	44.6
17.57	2	22	91.8	34.4	17.85	2	35	94.5	54.1	17.69	2	52	98.3	55.1	12.96	14	14	3.1	40.0	15.17	10	21	4.6	47.7
17.00	4	22	91.8	53.6	17.84	2	35	94.6	33.7	16.75	4	54	98.6	33.7	15.31	9	14	3.1	44.1	17.93	2	21	4.6	49.3
17.93	2	22	91.8	53.8	17.89	2	35	94.6	34.4	17.97	2	54	98.6	52.3	16.53	7	14	3.1	45.0	17.92	2	21	4.6	51.2
17.56	2	22	91.8	55.3	17.94	2	35	94.6	52.9	17.96	2	54	98.6	53.0	16.35	7	14	3.1	45.4	15.69	7	22	4.8	40.0
17.79	2	23	91.9	34.1	17.82	2	36	94.7	54.7	17.74	2	54	98.7	34.0	17.02	4	14	3.1	48.9	17.96	2	22	4.8	44.8
17.89	2	23	92.0	54.7	17.76	2	36	94.8	33.7	17.54	2	54	98.8	34.2	17.76	2	14	3.1	52.0	17.06	4	22	4.8	45.2
17.96	2	24	92.1	53.8	16.88	6	36	94.8	51.4	17.89	2	54	98.8	34.7	15.18	9	14	3.1	53.4	17.98	2	22	4.8	45.4
17.98	2	24	92.1	54.2	18.02	2	36	94.9	54.3	14.81	11	54	98.8	51.0	13.42	15	14	3.2	38.7	18.04	2	23	4.9	44.9
16.86	4	24	92.1	55.2	17.84	2	37	95.0	34.0	17.25	2	54	98.8	52.8	16.62	6	14	3.2	39.0	17.98	2	23	4.9	48.0
18.08	2	24	92.2	52.1	18.04	2	38	95.2	53.8	17.99	2	55	99.0	53.0	18.02	2	14	3.2	41.6	17.74	2	23	5.0	41.3
17.92	2	24	92.2	53.8	16.60	7	38	95.3	50.6	13.55	12	56	99.1	50.0	18.10	2	15	3.2	41.8	16.56	7	23	5.0	41.8
17.78	2	24	92.3	50.5	15.74	7	39	95.4	50.8	18.04	2	56	99.1	53.6	16.72	7	14	3.2	42.6	17.94	2	23	5.0	42.0
17.22	4	25	92.4	51.3	15.03	10	39	95.4	55.8	17.96	2	56	99.1	54.3	18.04	2	15	3.2	44.1	17.96	2	23	5.0	42.3
17.12	2	25	92.4	55.0	17.89	2	39	95.5	34.8	18.04	2	56	99.2	51.8	18.08	2	15	3.3	42.4	18.00	2	23	5.0	45.1
17.71	2	26	92.5	35.0	16.85	7	39	95.5	51.6	17.92	2	57	99.2	53.8	16.52	7	15	3.3	46.6	17.94	2	23	5.0	45.2
17.20	4	25	92.5	51.3	13.67	14	40	95.8	50.4	17.82	2	57	99.3	55.6	11.31	13	15	3.3	49.3	17.68	2	23	5.0	50.4
16.74	6	25	92.5	53.4	16.25	7	40	95.8	51.6	18.04	2	58	99.5	52.0	17.92	2	15	3.3	50.8	17.84	2	23	5.1	42.6
16.81	6	26	92.6	53.8	14.96	11	41	95.8	55.5	18.10	2	58	99.6	52.0	18.00	2	16	3.4	42.0	17.84	2	24	5.2	38.6
17.84	2	27	92.8	34.2	16.29	7	42	96.0	50.4	17.98	2	58	99.6	52.9	17.96	2	16	3.4	44.4	17.74	2	24	5.2	40.0
16.90	6	27	92.8	51.5	15.70	7	42	96.0	51.0	18.00	2	58	99.6	53.3	17.66	2	15	3.4	44.7	16.61	7	24	5.2	40.6
17.65	2	27	92.8	53.8	18.08	2	43	96.3	51.7	17.34	2	58	99.6	54.3	18.04	2	16	3.4	47.4	14.03	12	24	5.2	42.6
16.80	4	27	92.9	33.9	16.79	4	43	96.3	55.2	17.96	2	59	99.8	52.4	16.81	4	17	3.6	38.5	16.68	7	24	5.2	43.2
14.93	11	27	92.9	55.7	17.80	2	44	96.5	33.6	17.92	2	59	99.8	54.8	18.10	2	16	3.6	42.8	17.68	2	24	5.2	47.2
17.79	2	28	93.0	54.2	16.73	7	44	96.5	51.4	15.49	8	60	0.0	50.5	17.70	2	17	3.6	48.7	17.84	2	24	5.2	50.8
16.26	7	28	93.0	54.4	16.14	7	44	96.6	34.2	17.50	2	60	0.0	52.2	17.66	2	17	3.6	51.3	15.38	8	25	5.4	40.8
17.17	2	28	93.0	55.4	16.61	7	44	96.6	52.2	17.82	2	61	0.2	34.5	17.84	2	17	3.6	53.0	17.92	2	25	5.4	41.4
17.54	2	28	93.0	55.6	16.80	4	44	96.6	56.0	14.50	11	61	0.2	51.4	17.78	2	17	3.7	38.4	17.98	2	25	5.4	43.2
17.46	2	28	93.0	55.9	18.04	2	45	96.7	53.3	17.20	4	61	0.3	51.6	15.18	9	17	3.7	38.6	17.87	2	25	5.4	44.6
16.44	7	28	93.1	50.2	16.88	3	45	96.8	34.1	16.45	7	62	0.4	34.6	16.15	7	17	3.7	47.4	17.89	2	25	5.5	41.6
17.82	2	28	93.1	52.3	17.89	2	45	96.8	34.4	18.10	2	62	0.4	51.8	17.31	2	17	3.8	37.0	17.64	2	25	5.5	44.8
17.79	2	28	93.1	54.2	15.90	6	45	96.8	50.5	17.12	4	62	0.4	52.0	18.04	2	17	3.8	41.2	16.56	7	26	5.6	40.5
17.79	2	28	93.1	54.6	17.73	2	45	96.8	55.4	17.45	2	62	0.4	52.2	11.18	11	18	3.8	43.2	17.82	2	26	5.6	47.4
16.54	7	29	93.2	50.3	17.44	2	46	96.9	51.6	17.52	2	62	0.4	54.6	18.08	2	17	3.8	43.7	17.42	2	26	5.6	49.8
16.07	7	29	93.3	35.0	14.99	10	46	96.9	55.6	16.82	4	62	0.5	55.1	18.08	2	18	3.8	46.4	16.88	4	26	5.7	49.2
15.70	7	30	93.4	50.6	15.55	8	46	96.9	55.8	16.49	7	63	0.6	51.8	16.88	4	18	3.8	49.9	17.54	2	26	5.8	40.2
17.85	2	29	93.4	51.6	13.64	14	46	97.0	33.5	18.04	2	63	0.8	51.8	16.82	4	18	3.8	51.6	17.87	2	27	5.8	41.2
13.54	12	30	93.4	54.6	16.49	7	46	97.0	50.7	17.76	2	63	0.8	52.8	18.10	2	18	3.9	43.6	16.15	7	27	5.8	41.9
17.73	2	29	93.4	55.8	17.60	2	46	97.0	51.7	16.58	7	65	1.0	52.3	18.10	2	18	3.9	44.8	16.56	7	27	5.8	42.2
17.78	2	30	93.5	51.2	16.81	4	46	97.0	53.7	16.72	6	65	1.0	53.0	15.96	7	18	3.9	50.1	17.92	2	27	5.8	42.7
17.50	2	30	93.6	51.7	15.72	5	46	97.0	56.2	10.84	11	65	1.0	53.8	17.84	2	18	4.0	38.0	17.51	2	27	5.8	45.3

25 prec. + $95\overset{\mathrm{s}}{.}6$, + 1′ 19″

5^{h} Area 49. Supplementary Stars + 29°

451s—460s				461s—470s			
Mag.	α 24^{m}	x	y+40′	Mag.	α 24^{m}	x	y+40′
	s	′	′		s	′	′
17.92 2	27	5.8	46.2	17.76 2	29	6.2	41.6
17.92 2	27	5.8	46.6	17.60 2	29	6.2	46.9
17.92 2	27	5.8	47.6	16.51 7	29	6.2	47.4
17.89 2	27	5.8	48.8	16.86 3	29	6.2	49.2
17.84 2	27	5.8	49.4	17.84 2	30	6.6	43.3
14.51 12	27	5.9	46.8	17.84 2	30	6.6	45.6
16.80 4	27	6.0	45.3	17.24 2	31	6.7	43.4
17.38 2	28	6.1	40.9	17.84 2	31	6.7	45.3
16.89 4	28	6.1	48.6	17.32 2	31	6.8	44.4
17.84 2	29	6.2	41.0	17.76 2	32	7.0	44.3

25 prec. + 95$^{\mathrm{s}}$.6, + 1′ 18″

6^{h} Area 50. Center for 1900: 6^{h} 24^{m} + 29° 50′ (15′ × 15′) + 29°

1—40				41—80				81—120				121—160				161—200			
Mag.	α 23^{m}	x	y+50′	Mag.	α 23^{m}	x	y+50′	Mag.	α 23^{m}	x	y+50′	Mag.	α 23^{m}	x	y+50′	Mag.	α 24^{m}	x	y+50′
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
18.13 3	48.2	97.46	57 58	17.82 5	51.7	98.20	55 00	18.86 1	54.7	98.86	46 18	17.97 3	58.3	99.63	45 53	16.77 8	1.8	0.40	54 48
17.77 3	48.4	97.48	51 07	18.41 3	51.7	98.20	46 19	17.35 5	54.7	98.86	48 20	17.22 5	58.3	99.63	49 04	17.28 5	2.0	0.45	57 23
18.98 2	48.5	97.52	57 46	18.98 2	51.7	98.21	54 22	14.96 12	54.8	98.88	51 58	18.69 3	58.4	99.65	45 37	16.98 5	2.1	0.46	45 21
18.86 1	48.6	97.55	58 00	18.29 3	51.7	98.21	55 20	16.42 9	55.1	98.94	59 32	18.19 3	58.5	99.67	45 56	18.17 3	2.1	0.46	53 41
15.90 11	48.7	97.56	53 56	17.26 5	51.8	98.23	55 45	18.22 3	55.1	98.95	50 47	18.06 3	58.5	99.67	58 59	18.25 3	2.2	0.48	51 32
18.85 2	48.7	97.57	56 52	13.39 15	51.9	98.24	57 49	18.86 3	55.2	98.97	55 40	18.72 2	58.5	99.68	46 25	15.72 11	2.4	0.52	53 18
18.52 3	48.8	97.59	56 30	17.71 5	51.9	98.24	51 32	16.99 7	55.3	98.99	45 37	16.68 7	58.6	99.71	47 52	15.47 12	2.4	0.52	58 36
16.97 5	49.0	97.62	47 26	17.22 5	51.9	98.24	46 34	14.33 11	55.4	99.01	55 29	18.02 3	58.8	99.74	51 12	18.95 2	2.4	0.53	58 28
18.81 3	49.0	97.63	49 54	13.97 14	51.9	98.24	45 07	17.76 3	55.5	99.02	54 10	18.97 1	59.0	99.75	51 02	14.24 13	2.4	0.53	58 50
17.57 5	49.1	97.64	47 20	18.26 3	52.0	98.26	47 56	17.48 2	55.6	99.04	59 36	17.22 8	58.9	99.76	55 06	18.31 3	2.5	0.54	47 54
16.66 8	49.2	97.66	52 51	18.82 2	51.9	98.26	55 01	18.07 3	55.6	99.04	52 53	18.87 3	59.0	99.79	57 39	18.07 5	2.8	0.60	54 48
18.35 3	49.2	97.67	59 10	17.14 7	52.0	98.27	54 17	17.33 5	55.6	99.05	59 43	18.86 1	59.3	99.86	46 30	19.03 1	2.9	0.62	52 04
18.86 1	49.3	97.68	54 19	17.75 5	52.1	98.28	52 18	18.63 3	55.6	99.05	50 21	11.99w 14	59.4	99.88	48 37	16.33 9	2.9	0.63	47 50
17.49w 6	49	97.7	54 24	14.86 12	52.3	98.34	58 31	17.65 5	55.6	99.05	50 28	17.04 7	59.5	99.89	45 06	18.86 1	3.0	0.64	47 04
14.48 13	49.5	97.72	53 53	17.85 5	52.4	98.35	53 26	16.43 8	55.6	99.05	45 45	15.50 12	59.6	99.93	56 14	18.87 3	3.4	0.74	58 55
17.68 5	49.5	97.72	51 05	16.68 8	52.8	98.44	48 59	18.81 3	55.8	99.08	46 19	18.61 3	59.6	99.93	57 43	15.98 10	3.5	0.77	49 34
17.91 3	49.6	97.74	55 59	16.99 3	52.8	98.44	58 18	17.11 5	55.9	99.13	57 20	16.22 9	59.7	99.94	55 31	18.75 3	3.7	0.81	45 41
14.10 15	49.6	97.75	54 37	15.72 11	52.8	98.44	57 36	16.96 7	56.0	99.13	49 06	14.87 13	59.7	99.94	54 26	15.94 10	3.7	0.81	51 32
17.97 3	49.6	97.75	48 49	18.78 2	53.0	98.48	53 55	18.06 3	56.1	99.14	50 57	18.53 2	59.8	99.96	57 24	18.04 3	3.8	0.83	47 29
16.32 9	49.6	97.75	48 44	16.28 10	53.1	98.51	54 09	17.46 5	56.1	99.14	48 25	15.97 10	59.8	99.97	52 02	14.31 13	4.1	0.89	55 40
18.72 3	49.7	97.77	47 54	18.86 1	53.3	98.54	47 35	14.24 13	56.0	99.15	57 07	17.37 5	60.0	0.01	54 33	14.09 11	4.1	0.90	53 55
18.82 3	49.7	97.77	56 11	16.60 3	53.3	98.54	55 31	19.16 2	56.2	99.18	55 50	15.63 11	60.1	0.02	57 32	17.01 5	4.1	0.91	46 39
15.24 11	50.0	97.82	49 33	18.10 3	53.3	98.56	58 34	18.60 3	56.5	99.25	47 15	17.38 5	60.1	0.03	47 17	16.93 8	4.3	0.92	59 04
18.84 3	50.0	97.82	54 58	18.22 3	53.5	98.59	55 25	17.74 5	56.6	99.26	51 41	16.87 6	60.2	0.04	49 16	18.20 3	4.4	0.96	56 08
15.97 10	50.2	97.87	53 19	18.42 3	53.5	98.59	58 52	18.28 3	56.6	99.27	49 24	17.12 7	60.2	0.04	58 42	17.26 5	4.5	0.99	49 01
18.51 3	50.3	97.91	50 45	15.52 12	53.5	98.59	59 05	14.76 12	57.0	99.35	59 56	17.63 5	60.2	0.05	53 40	16.92 5	4.5	0.99	45 00
17.38 5	50.3	97.91	58 03	18.86 2	53.6	98.63	54 43	17.48 5	57.1	99.37	48 16	17.81 3	60.4	0.08	50 15	18.59 3	4.6	1.01	51 52
15.77 11	50.4	97.93	46 50	18.97 1	53.7	98.65	52 45	18.22 2	57.1	99.37	52 00	19.14 2	60.6	0.13	47 40	19.19 2	4.8	1.05	59 50
17.40 5	50.5	97.94	56 17	16.06 10	53.7	98.65	49 17	17.57 5	57.1	99.38	51 42	17.65 5	60.7	0.14	54 05	17.30 5	4.8	1.05	49 48
18.37 3	50.5	97.94	50 31	14.67 13	53.9	98.69	51 59	14.76 9	57.3	99.42	48 39	18.71 3	60.7	0.15	59 36	18.66 3	4.9	1.06	54 33
17.97 3	50.6	97.96	50 15	18.71 3	54.0	98.70	56 12	18.39 3	57.3	99.43	55 05	16.51 8	60.9	0.19	54 55	18.25 3	5.0	1.08	46 11
18.95 2	50.6	97.97	50 28	18.89 2	54.0	98.71	46 19	16.15 9	57.4	99.44	46 44	16.98 7	60.9	0.19	47 10	18.95 3	5.0	1.09	55 17
18.78 2	50.8	98.00	53 19	18.85 2	54.1	98.72	48 14	15.68 11	57.5	99.46	49 37	16.98 5	61.0	0.22	47 16	18.97 1	5.1	1.11	49 25
17.50 5	50.9	98.03	54 48	18.97 1	54.1	98.72	54 40	17.14 5	57.5	99.46	49 57	17.24 5	61.1	0.24	58 51	18.84 3	5.3	1.14	54 57
16.87 5	50.9	98.03	55 20	18.49 3	54.2	98.75	57 14	17.89 5	57.6	99.48	51 00	18.41 3	61.1	0.25	58 15	16.00 11	5.3	1.15	55 45
17.65 5	50.9	98.03	57 28	15.90 9	54.2	98.75	58 30	15.66 11	57.6	99.48	59 35	17.99 3	61.4	0.30	45 51	18.92 3	5.4	1.18	52 35
16.64 9	51.1	98.07	57 54	13.50 13	54.3	98.76	46 38	17.55 5	57.6	99.48	56 40	14.25 12	61.6	0.33	52 24	18.82 2	5.4	1.18	54 02
18.21 3	51.3	98.13	45 47	16.57 6	54.3	98.77	50 08	17.04 6	57.8	99.53	58 08	18.45 3	61.6	0.35	54 01	17.86 5	5.4	1.18	50 31
18.55 3	51.4	98.15	51 02	18.77 3	54.7	98.84	56 56	15.82 11	57.9	99.54	55 01	18.89 2	61.7	0.38	46 09	17.04 8	5.5	1.19	51 06
17.31 5	51.6	98.19	59 40	17.53 3	54.7	98.85	46 46	17.45 5	58.1	99.58	53 24	19.09 2	61.8	0.40	51 05	15.69 11	5.5	1.21	55 59

25 prec. + 95$^{\mathrm{s}}$.9, − 0′ 52″

201—260					261—320					321—380					381—440					441—500				
Mag.		α 24^{m}	x	$y+50'$	Mag.		α 24^{m}	x	$y+50'$	Mag.		α 24^{m}	x	$y+50'$	Mag.		α 24^{m}	x	$y+50'$	Mag.		α 24^{m}	x	$y+50'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
17.22	7	5.5	1.21	55 32	19.12	2	11.6	2.51	57 47	18.24	3	16.5	3.57	59 07	18.29	2	23.9	5.17	58 48	19.16	2	30.8	6.68	51 22
18.29	3	5.7	1.24	46 50	18.45	3	11.6	2.53	55 00	17.25	5	16.5	3.58	58 52	18.79	3	24.2	5.24	57 29	18.57	3	31.0	6.72	54 05
16.96	8	5.7	1.25	56 25	18.52	3	11.7	2.54	53 28	17.95	3	16.5	3.58	50 04	19.10	3	24.2	5.25	54 51	16.29	9	31.0	6.73	50 36
18.85	2	5.8	1.26	59 30	16.89	5	11.8	2.56	56 07	18.83	3	16.6	3.59	56 48	18.47	3	24.2	5.25	53 26	18.84	3	31.2	6.74	59 09
19.08	1	5.8	1.26	52 27	17.47	5	11.9	2.57	59 55	15.73	11	16.6	3.59	57 01	18.92	1	24.2	5.26	48 45	17.64	5	31.1	6.74	46 46
18.69	3	5.8	1.26	53 22	18.97	1	11.9	2.59	49 30	18.26	3	16.6	3.61	47 16	18.87	3	24.4	5.29	45 59	18.55	3	31.1	6.75	47 18
16.86	8	5.8	1.27	55 19	18.65	3	12.0	2.59	55 40	17.04	7	16.7	3.63	52 29	18.76	3	24.4	5.29	47 46	17.99	3	31.1	6.75	47 34
16.69	9	6.0	1.30	56 45	16.22	8	12.0	2.60	51 12	16.92	6	16.8	3.64	53 15	18.67	3	24.4	5.29	59 09	18.05	3	31.1	6.75	49 16
17.78	5	6.0	1.30	45 21	17.53	5	12.1	2.62	47 23	18.94	2	16.9	3.67	51 11	18.83	3	24.5	5.31	59 03	17.85	5	31.2	6.75	55 46
18.60	3	6.1	1.33	59 35	19.16	3	12.2	2.65	57 03	14.55	12	17.0	3.68	51 26	16.98	8	24.6	5.32	57 17	18.25	3	31.2	6.77	51 33
16.45	8	6.2	1.34	57 23	15.94	9	12.6	2.72	55 34	15.75	10	17.0	3.68	45 32	17.63	5	24.5	5.33	52 48	16.92	7	31.2	6.77	54 23
17.79	3	6.4	1.38	58 08	17.50	5	12.5	2.73	45 25	17.63	5	17.0	3.69	59 40	14.26	13	24.9	5.40	53 25	18.78	3	31.4	6.82	49 32
18.40	3	6.4	1.39	48 46	18.56	2	12.5	2.73	45 30	14.79	12	17.3	3.75	48 35	16.80	8	24.9	5.40	47 39	18.42	3	31.5	6.82	55 38
15.53	11	6.5	1.41	57 30	18.80	2	12.7	2.76	46 19	17.80	3	17.3	3.76	50 37	18.35	3	25.0	5.43	49 38	18.79	3	32.1	6.94	57 31
19.30	2	6.7	1.45	55 15	16.73	8	12.7	2.76	53 21	17.50	6	17.8	3.86	52 50	18.47	3	25.2	5.47	55 42	18.97	1	32.1	6.96	56 59
18.71	3	6.7	1.46	57 06	17.85	3	12.8	2.78	56 06	18.86	1	18.1	3.93	53 31	16.19	10	25.3	5.48	45 26	17.11	5	32.2	6.98	55 18
17.20	5	6.8	1.48	51 13	19.08	1	13.0	2.83	51 47	18.58	3	18.2	3.96	49 54	16.68	8	25.3	5.49	46 11	16.76	8	32.2	6.98	51 54
15.96	10	7.4	1.60	59 37	16.81	8	13.2	2.86	48 27	18.44	2	18.3	3.97	53 22	16.09	10	25.3	5.49	49 34	15.76	11	32.3	7.01	53 09
16.92	8	7.4	1.60	55 25	18.52	1	13.3	2.88	52 40	18.24	3	18.3	3.98	46 39	16.11	9	25.4	5.51	49 51	19.16	2	32.5	7.05	54 22
17.21	7	7.4	1.61	45 26	17.71	5	13.3	2.88	51 35	16.69	7	18.4	3.99	48 01	18.28	3	25.5	5.53	55 38	17.05	8	32.5	7.05	46 10
18.39	3	7.5	1.63	45 04	16.34	8	13.6	2.94	53 53	18.97	3	18.5	4.00	58 43	18.21	3	25.6	5.54	48 02	16.09	9	32.6	7.07	53 42
17.26	5	7.5	1.63	57 24	16.13	10	13.6	2.94	58 13	16.01	10	18.5	4.03	54 51	18.70	3	25.6	5.55	59 40	16.06	10	32.8	7.10	57 23
16.61	8	7.7	1.66	58 45	18.50	3	13.6	2.94	49 06	17.56	5	18.6	4.05	53 37	17.13	6	25.8	5.58	58 46	17.46	5	32.8	7.13	45 46
15.58	11	7.7	1.67	45 16	14.79	13	13.6	2.95	51 13	18.86	1	18.6	4.05	45 26	19.01	3	26.0	5.64	51 55	17.85	3	33.0	7.17	48 21
17.63	3	7.8	1.68	55 11	17.46	5	13.7	2.97	49 53	18.09	3	18.8	4.08	59 29	17.81	3	26.0	5.64	45 45	16.04	10	33.0	7.17	52 43
18.93	3	7.7	1.68	52 41	18.47	3	13.8	3.01	48 36	17.87	3	18.8	4.09	47 22	17.62	5	26.1	5.65	59 28	18.41	3	33.2	7.19	59 01
17.50	5	8.0	1.74	50 29	17.25	5	13.9	3.03	50 06	17.31	3	19.1	4.14	59 19	18.44	3	26.1	5.65	59 01	18.74	3	33.2	7.20	51 20
17.96	3	8.1	1.76	58 09	17.46	5	14.1	3.04	56 50	17.42	7	19.2	4.16	51 50	18.08	3	26.0	5.65	45 55	17.41	5	33.4	7.22	55 33
18.41	3	8.1	1.77	48 34	18.21	3	14.3	3.09	57 24	18.79	3	19.4	4.21	47 22	18.71	3	26.2	5.68	47 31	17.20	5	33.5	7.26	45 29
19.03	1	8.3	1.81	50 43	19.20	3	14.2	3.09	53 10	15.83	11	19.4	4.21	45 03	15.99	9	26.4	5.72	59 56	18.32	2	33.7	7.29	57 30
18.66	3	8.3	1.81	47 12	18.90	2	14.2	3.09	46 18	18.86	1	19.5	4.22	54 47	17.52	5	26.5	5.74	55 47	18.69d	1	33.8	7.32	45 29
16.07	10	8.4	1.83	45 12	16.86	8	14.2	3.09	48 18	16.81	8	19.5	4.23	51 52	18.85	3	26.8	5.83	47 35	19.00	2	34.0	7.37	59 58
17.14	5	8.4	1.83	46 44	16.84	7	14.3	3.11	55 08	17.84	5	19.6	4.24	56 33	15.17	12	26.9	5.84	54 17	16.72	7	34.0	7.38	51 52
17.56	7	8.7	1.89	52 19	16.33	9	14.4	3.13	55 59	16.88	5	19.7	4.27	51 31	17.98	3	27.1	5.87	56 56	18.24	3	34.2	7.43	52 52
12.71	15	8.8	1.90	46 24	17.23	5	14.5	3.14	56 49	19.03	1	19.8	4.28	57 40	18.97	1	27.1	5.89	49 59	16.42	9	34.4	7.45	57 59
17.35	5	9.0	1.95	47 20	16.12	10	14.6	3.16	45 57	16.78	6	19.8	4.28	58 45	18.62	3	27.1	5.89	45 39	16.82	8	34.4	7.46	52 23
18.86	3	9.0	1.95	50 08	17.71	5	14.9	3.22	51 58	16.87	5	19.8	4.29	45 28	18.91	3	27.4	5.93	59 08	16.32	8	34.5	7.47	57 27
16.77	6	9.0	1.95	52 15	18.18	2	15.0	3.25	53 12	16.69	8	19.9	4.32	46 36	18.32	3	27.7	6.00	46 16	17.38	6	34.7	7.52	53 51
14.36	12	9.2	2.01	49 56	18.80	1	15.0	3.26	46 10	12.00w	13	19.9	4.33	53 32	18.76	3	27.7	6.01	56 40	18.28	3	34.8	7.54	49 43
16.18	10	9.2	2.01	56 26	13.88	14	15.3	3.33	52 41	16.27	8	20.1	4.36	46 32	17.41	7	28.2	6.10	56 20	15.13	11	34.8	7.55	47 42
17.80	5	9.3	2.03	50 20	17.91	5	15.4	3.34	54 34	16.95	6	20.2	4.39	54 07	19.11	3	28.1	6.10	52 24	15.23	11	34.8	7.56	48 03
17.01	6	9.3	2.03	53 02	18.92	1	15.4	3.34	47 54	16.19	9	20.6	4.47	55 28	18.88	2	28.3	6.12	59 13	18.93	2	34.9	7.58	50 34
16.14	9	9.7	2.11	53 45	17.05	7	15.4	3.35	56 49	18.62	3	20.7	4.51	46 15	15.11	10	28.4	6.17	46 37	16.91	8	35.1	7.63	50 21
16.82	4	9.9	2.15	56 00	15.95	9	15.4	3.35	53 00	16.67	6	20.7	4.51	48 31	16.12	10	28.5	6.19	49 18	16.63	8	35.1	7.63	45 27
19.08	1	10.1	2.19	52 32	16.38	10	15.5	3.37	46 21	17.05	6	20.9	4.53	56 29	18.63	3	28.9	6.28	47 52	13.96	16	35.3	7.64	59 42
16.61	8	10.1	2.20	49 13	13.29	15	15.5	3.37	48 17	18.80	3	20.9	4.54	50 19	17.33	5	29.0	6.30	47 16	18.37	3	35.2	7.65	46 36
17.55	5	10.1	2.21	54 55	18.60	3	15.6	3.38	52 51	15.87	11	21.0	4.56	48 11	16.18	9	29.1	6.32	54 09	17.52	6	35.7	7.72	59 35
18.69	1	10.2	2.22	47 10	16.99	5	15.6	3.38	51 58	17.70	3	21.8	4.72	47 21	17.55	5	29.4	6.37	55 04	16.30	10	35.7	7.74	54 03
18.35	3	10.2	2.23	49 05	16.49	9	15.7	3.40	47 43	17.02	8	21.9	4.74	59 57	16.19	9	29.7	6.42	59 47	17.96	3	35.7	7.74	48 30
17.38	5	10.3	2.25	49 59	17.21	7	15.8	3.43	56 47	8.55w	6	22.2	4.83	53 46	19.14	2	29.7	6.44	53 29	18.16	3	35.9	7.78	50 57
17.14	5	10.3	2.25	46 12	18.97	3	15.8	3.43	57 45	17.58	5	22.2	4.83	50 42	17.69	5	29.7	6.44	48 08	18.90	2	36.1	7.83	57 22
12.29	15	10.4	2.25	58 17	18.26	3	15.9	3.45	47 17	16.58	8	22.6	4.90	56 42	18.42	3	29.9	6.48	54 50	18.15	3	36.1	7.83	57 01
18.92	2	10.5	2.28	56 31	14.72	13	16.0	3.47	49 12	17.48	5	22.6	4.91	57 14	18.81	3	30.0	6.49	58 44	18.86	1	36.2	7.85	46 24
14.67	13	10.6	2.29	58 51	18.50	3	16.0	3.47	47 49	18.92	1	22.7	4.92	47 56	18.44	3	30.1	6.52	55 48	16.12	11	36.3	7.87	55 44
17.04	6	10.6	2.29	56 55	17.64	5	16.0	3.48	53 51	14.01	16	22.8	4.95	45 27	15.32	11	30.3	6.58	53 51	16.04	9	36.3	7.87	59 15
17 39	3	10.5	2.29	48 51	18.89	3	16.3	3.52	59 57	16.94	8	23.1	5.01	56 52	18.41	3	30.3	6.58	49 37	18.92	1	36.5	7.92	48 24
17.13	6	10.7	2.33	54 44	17.81	5	16.2	3.52	49 24	18.34	3	23.2	5.02	55 45	13.94	13	30.4	6.61	47 43	17.38	5	37.0	8.01	58 23
16.71	8	10.9	2.36	52 31	18.73	3	16.3	3.54	49 56	18.32	3	23.2	5.02	58 09	16.99	8	30.6	6.62	55 07	17.17	5	37.1	8.04	46 32
17.72	5	11.2	2.43	55 08	17.16	7	16.3	3.54	53 22	14.11	13	23.4	5.08	45 12	18.51	3	30.6	6.65	48 20	16.27	9	37.1	8.06	53 17
18.30	3	11.3	2.44	57 29	17.07	5	16.5	3.57	57 54	19.13	1	23.7	5.14	53 06	18.32	3	30.7	6.66	53 05	15.04	12	37.3	8.08	55 52

25 prec. + 95.ˢ9, − 0′ 53″

501—560				561—620				621—680				681—719			
Mag.	α 24^m	x	$y+50'$	Mag.	α 24^m	x	$y+50'$	Mag.	α 24^m	x	$y+50'$	Mag.	α 24^m	x	$y+50'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
15.63 10	37.3	8.10	54 57	18.35 3	43.3	9.38	55 24	18.10 3	48.6	10.55	48 29	18.28 3	53.7	11.65	52 09
18.27 3	37.3	8.10	52 41	18.57 3	43.3	9.39	51 57	18.86 3	48.8	10.57	55 43	16.88 5	53.8	11.67	51 10
18.97 1	37.5	8.14	50 41	17.59 5	43.6	9.47	52 41	17.80 3	48.8	10.59	48 53	16.62 9	54.2	11.73	55 13
18.57 3	37.8	8.18	59 29	18.74 3	43.7	9.48	49 32	13.40 14	49.0	10.60	58 16	15.34 11	54.0	11.73	52 39
18.44 3	37.9	8.23	46 43	16.76 8	44.0	9.52	59 57	15.73 11	49.0	10.63	51 12	18.67 3	54.3	11.74	57 40
18.68 3	38.2	8.29	49 58	16.16 10	43.9	9.52	51 48	18.12 3	49.1	10.63	57 30	17.61 3	54.1	11.75	45 36
14.36 13	38.4	8.32	54 51	15.98 10	43.9	9.53	52 49	18.39 3	49.2	10.64	58 39	12.08 13	54.2	11.77	45 54
18.90 2	38.5	8.34	58 35	18.73 3	44.5	9.62	59 45	17.39 5	49.3	10.68	58 46	14.38 13	54.4	11.78	55 08
18.48 3	38.5	8.35	49 01	15.14 11	44.5	9.63	57 57	15.54 11	49.3	10.69	51 30	18.88 3	54.4	11.81	52 13
16.48 8	38.5	8.36	51 40	17.64 5	44.5	9.64	48 00	15.94 10	49.5	10.74	52 31	18.10 3	54.6	11.83	58 57
17.00 6	38.9	8.44	52 34	18.43 3	44.5	9.65	51 29	18.65 3	49.5	10.74	52 20	17.80 5	54.6	11.85	51 01
18.97 1	39.0	8.47	53 46	18.35 3	44.5	9.65	51 01	18.84 2	49.5	10.75	49 38	16.27 9	54.6	11.85	50 03
18.46 1	39.4	8.53	55 51	17.34 7	44.5	9.65	53 40	15.77 11	49.7	10.78	54 20	15.36 11	54.7	11.87	48 05
18.97 1	39.4	8.54	54 01	18.15 3	44.7	9.70	46 11	16.25 9	49.8	10.78	58 41	17.70 3	54.9	11.91	45 45
18.97 1	39.4	8.55	54 56	13.33 14	44.8	9.72	49 05	18.56 3	49.8	10.78	59 28	17.06 8	54.9	11.91	50 09
18.49 3	39.5	8.55	58 39	16.26 9	44.9	9.73	57 57	17.09 7	50.0	10.82	59 17	16.29 9	55.1	11.92	56 21
18.15 3	39.4	8.56	48 43	17.98 3	45.0	9.74	55 35	17.77 5	50.1	10.87	53 39	18.92 2	55.2	11.94	58 13
17.36 5	39.6	8.58	56 22	15.89 9	44.9	9.75	49 26	18.79 3	50.2	10.89	53 14	16.80 6	55.1	11.94	45 10
16.33 9	39.7	8.59	55 31	18.26 3	44.9	9.75	54 32	17.50 5	50.2	10.89	45 08	17.50 5	55.1	11.95	48 49
17.71 4	39.7	8.61	58 10	17.51 5	45.1	9.78	54 50	17.49 5	50.2	10.91	45 50	17.06 6	55.2	11.98	53 01
18.49 3	39.6	8.61	47 51	13.70 13	45.1	9.78	45 55	17.55 5	50.3	10.93	49 19	17.13 5	55.3	11.99	51 42
16.86 6	39.7	8.62	51 05	17.82 3	45.4	9.82	56 20	17.06 7	50.4	10.94	50 59	18.73 3	55.4	12.02	50 04
17.24 5	39.7	8.63	46 44	17.97 3	45.4	9.82	59 00	18.23 3	50.4	10.95	46 39	17.03 5	55.4	12.03	53 11
18.41 3	39.9	8.67	45 48	18.05 3	45.4	9.82	58 25	18.83 3	50.6	10.95	59 06	17.18 5	55.6	12.04	56 06
18.53 3	40.2	8.72	45 08	17.80 3	45.5	9.84	56 28	18.24 3	50.7	10.98	59 26	16.50 8	55.5	12.04	47 58
16.16 10	40.2	8.73	51 23	14.64 13	45.4	9.84	52 15	16.09 10	50.8	10.99	55 37	16.74 6	55.7	12.08	45 54
18.36 3	40.2	8.73	53 23	17.30 5	45.4	9.85	50 40	15.49 11	50.7	11.01	51 23	18.38 3	55.8	12.11	53 11
18.78 3	40.3	8.74	49 10	18.92 1	45.4	9.85	49 58	18.27 3	51.0	11.06	49 37	16.91 8	55.8	12.11	47 55
18.90 3	40.4	8.77	53 12	18.01 3	45.4	9.86	49 44	16.98 5	51.1	11.08	54 48	17.48 5	55.9	12.13	50 02
16.14 10	40.5	8.78	51 13	16.50 9	45.6	9.89	51 40	15.52 11	51.3	11.10	58 18	18.86 1	56.1	12.14	57 01
17.84 3	40.5	8.79	47 40	17.94 3	45.8	9.95	47 51	16.67 6	51.2	11.10	45 30	17.48 5	56.2	12.17	57 44
17.98 3	40.7	8.81	59 38	15.07 13	46.0	9.99	49 23	17.47 3	51.2	11.11	51 14	18.57 3	56.2	12.19	50 15
16.18 9	40.7	8.82	50 30	10.34w 8	46.2	10.02	51 55	16.08 9	51.3	11.12	46 12	18.39 3	56.3	12.22	50 52
16.62 8	40.8	8.83	59 48	17.83 5	46.3	10.04	49 09	18.34 3	51.3	11.12	50 04	17.83 5	56.7	12.27	58 14
14.69 13	40.9	8.87	51 31	13.85 13	46.3	10.05	48 16	18.20 3	51.4	11.16	47 53	14.82 13	56.7	12.30	54 35
16.77 8	41.0	8.91	53 01	18.43 3	46.4	10.05	56 28	18.81 3	51.5	11.18	49 42	17.56 5	56.8	12.32	45 42
18.75 3	41.2	8.92	57 06	18.67 3	46.5	10.08	53 51	17.89 5	51.6	11.18	55 44	16.54 9	56.8	12.33	51 21
18.36 3	41.1	8.93	46 34	18.53 3	46.5	10.08	50 04	16.30 9	51.6	11.21	54 42	15.77 10	57.0	12.36	52 41
18.77 2	41.4	8.99	47 33	18.26 3	46.7	10.11	56 48	17.15 5	51.7	11.22	52 49	15.70 10	57.0	12.37	54 28
16.24 10	41.6	9.01	59 14	18.75 3	46.7	10.13	52 55	18.61 3	51.8	11.22	58 34				
18.38 3	41.7	9.02	58 57	16.76 6	46.9	10.14	59 53	18.02 3	51.8	11.22	57 01				
16.47 8	41.6	9.03	51 31	14.75 13	46.9	10.17	54 47	18.49 3	51.8	11.24	46 42				
16.70 6	41.7	9.04	50 16	18.99 3	47.0	10.19	50 30	15.36 11	52.0	11.26	56 59				
17.54 5	41.7	9.04	46 28	17.42 5	47.1	10.22	53 30	17.39 5	52.0	11.28	48 40				
17.60 5	41.7	9.04	46 48	18.74 3	47.5	10.28	59 39	17.09 7	52.1	11.30	50 29				
18.11 5	42.1	9.12	55 37	16.81 8	47.5	10.31	51 16	18.56 3	52.5	11.39	48 51				
16.39 8	42.2	9.14	51 21	18.60 3	47.7	10.32	58 00	14.99 12	52.6	11.41	47 56				
17.05 5	42.2	9.15	50 16	16.85 8	47.7	10.34	50 50	18.79 2	52.7	11.43	46 30				
17.93 3	42.2	9.16	49 55	17.89 5	47.8	10.37	53 28	16.54 10	52.7	11.43	52 51				
17.70 4	42.4	9.20	47 57	17.01 6	47.9	10.37	57 18	15.70 10	53.0	11.51	52 19				
17.73 5	42.5	9.21	55 38	18.26 3	47.9	10.37	57 42	17.75 3	53.1	11.52	47 10				
17.15 7	42.4	9.21	47 44	14.76 13	47.9	10.40	51 34	18.58 3	53.3	11.54	58 06				
18.51 3	42.5	9.22	46 09	18.01 3	48.2	10.47	53 24	17.44 5	53.3	11.54	59 04				
18.49 3	42.6	9.22	58 33	16.39 9	48.3	10.48	50 45	17.73 2	53.2	11.55	52 55				
17.10 5	42.5	9.22	50 46	18.62 3	48.3	10.48	49 53	17.80 5	53.4	11.59	52 22				
17.32 6	42.6	9.23	55 00	17.77 5	48.3	10.48	49 36	17.63 5	53.5	11.61	48 57				
17.64 5	42.8	9.28	50 41	15.38 11	48.4	10.51	54 00	14.91 13	53.6	11.61	55 32				
15.88 11	43.1	9.35	52 53	18.62 3	48.5	10.53	53 21	18.37 3	53.7	11.62	56 23				
18.46 2	43.1	9.36	46 39	18.05 3	48.6	10.54	45 31	16.94 8	53.7	11.63	55 20				
17.59 3	43.2	9.37	45 04	17.91 3	48.6	10.54	48 54	18.43 3	53.7	11.64	52 42				

25 prec. + $95\overset{s}{.}9$, − 0′ 54″

1*s*—60*s*					61*s*—120*s*					121*s*—180*s*					181*s*—240*s*					241*s*—300*s*				
Mag.		α 23^m	x	$y+50'$	Mag.		α 23^m	x	$y+50'$ / $y-10'$	Mag.		α 23^m	x	$y+50'$ / $y-10'$	Mag.		α 24^m	x	$y+50'$ / $y-10'$	Mag.		α 24^m	x	$y+50'$ / $y-10'$
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
17.22	6	30	93.5	52.6	15.75	8	40	95.8	59.4	15.98	8	54	98.6	1.6	16.08	8	8	1.8	0.8	16.74	7	23	5.0	43.4
14.20	14	30	93.6	51.9	17.42	4	41	95.9	48.5	16.87	5	54	98.6	2.4	17.95	2	9	1.9	1.0	17.62	2	23	5.0	3.1
16.58	6	30	93.6	54.2	18.16	2	41	95.9	49.4	17.77	2	54	98.7	44.6	18.24	2	9	1.9	4.5	14.82	11	24	5.1	42.4
15.52	9	30	93.6	54.4	16.58	8	41	95.9	53.7	15.70	8	55	98.9	0.5	18.34	2	9	2.0	45.0	17.12	4	24	5.1	3.3
18.15	2	32	93.8	51.4	17.32	4	41	95.9	54.4	18.32	2	55	98.9	3.3	15.75	8	9	2 0	3.4	18.33	2	24	5.2	1.0
18.29	2	32	93.9	53.2	17.15	4	41	95.9	56.0	15.42	9	55	99.0	0.7	17.25	4	10	2.1	43.9	16.53	8	24	5.2	1.4
12.21	14	32	93.9	54.3	17.43	2	41	95.9	57.4	18.16	2	57	99.2	1.6	12.02	11	10	2.1	44.2	17.62	4	24	5.2	2.4
17.24	4	32	94.0	50.3	15.10	10	41	95.9	57.7	18.92	2	57	99.4	1.4	13.31	14	10	2.1	2.0	17.43	4	24	5.2	3.8
18.36	2	33	94.1	50.4	17.50	4	41	95.9	58.4	16.85	7	58	99.5	2.4	17.43	4	10	2.2	1.8	18.43	2	24	5.3	43.3
15.59	9	33	94.1	54.2	15.37	9	41	95.9	59.2	18.46	2	58	99.5	2.6	17.48	4	10	2.2	4.2	15.64	9	24	5.3	3.8
17.40	4	33	94.2	51.4	13.71	13	41	95.9	0.8	16.98	5	58	99.6	0.9	15.88	8	11	2.3	1.4	18.18	2	25	5.5	43.4
16.66	4	33	94.2	51.6	18.40	2	42	96.0	52.6	17.22	6	58	99.6	2.0	17.18	4	11	2.4	2.4	11.77	11	25	5.5	43.6
16.06	8	33	94.2	52.4	17.39	4	42	96.0	58.3	17.55	4	58	99.6	2.2	17.72	4	12	2.5	44.2	17.89	2	25	5.5	44.3
17.42	4	34	94.3	57.2	17.47	4	42	96.0	59.4	17.06	6	58	99.6	3.4	15.69	9	12	2.6	2.4	18.42	2	25	5.5	45.0
18.35	2	34	94.4	51.0	18.63	2	42	96.1	54.8	18.62	2	59	99.8	44.2	17.50	4	12	2.7	0.2	16.83	7	25	5.5	2.4
12.70	14	34	94.4	52.8	16.46	8	42	96.1	56.4	17.79	2	59	99.8	44.3	18.69	2	13	2.8	44.0	17.20	4	25	5.5	4.7
16.28	8	34	94.4	54.5	18.18	2	42	96.1	57.9	17.16	4	59	99.8	44.6	17.68	2	13	2.8	44.6	16.90	4	26	5.6	42.4
17.23	4	34	94.4	55.7	16.15	8	43	96.2	51.2	16.44	7	59	99.8	44.9	15.54	9	13	2.8	0.4	15.47	9	26	5.6	2.2
18.78	2	34	94.4	56.6	17.07	5	42	96.2	55.4	17.13	6	59	99.8	4.0	17.36	4	13	2.9	0.9	17.93	2	26	5.6	2.6
17.18	4	35	94.6	51.6	18.28	2	42	96.2	59.0	17.50	4	60	99.9	44.3	18.14	2	13	2.9	2.0	18.18	2	26	5.7	43.7
18.78	2	35	94.6	58.6	17.99	2	43	96.3	55.2	15.77	8	60	99.9	2.8	17.63	4	14	3.0	0.4	16.96	4	26	5.8	44.0
14.23	11	36	94.8	48.7	17.41	4	43	96.3	55.8	16.57	8	60	0.0	1.8	17.70	2	14	3.1	42.4	17.48	4	27	5.8	2.4
16.85	7	36	94.8	50.4	18.64	2	43	96.4	46.4	18.14	2	60	0.0	2.4	15.30	9	14	3.1	44.0	17.64	4	27	5.8	2.6
18.20	2	36	94.8	54.0	16.59	5	43	96.4	48.6	18.47	2	60	0.1	0.4	18.31	2	14	3.1	44.9	18.52	2	27	5.8	3.8
18.00	2	36	94.8	54.6	17.72	4	43	96.4	49.3	16.56	8	60	0.1	2.0	16.83	5	14	3.1	2.2	13.37	12	27	5.9	42.9
17.65	4	36	94.8	55.6	15.07	10	44	96.4	56.8	17.80	2	60	0.1	3.4	17.08	5	15	3.2	0.1	18.62	2	27	5.9	2.9
11.99	12	36	94.9	50.0	18.10	2	44	96.5	57.3	16.92	5	61	0.2	0.3	18.20	2	15	3.2	0.3	18.34	2	27	5.9	3.1
17.59	4	36	94.9	52.0	15.92	8	44	96.6	52.0	17.52	2	61	0.2	0.7	18.77	2	15	3.2	4.0	18.46	2	28	6.0	45.0
17.96	2	36	94.9	53.8	17.02	5	45	96.6	54.2	17.87	2	61	0.2	0.9	17.34	2	15	3.3	43.4	15.95	8	28	6.1	0.6
16.79	7	36	94.9	55.6	16.32	8	44	96.6	57.8	17.39	2	61	0.2	1.0	18.59	2	15	3.3	2.0	16.97	5	29	6.2	44.7
14.62	10	36	94.9	57.4	15.63	9	45	96.8	52.4	17.21	4	61	0.3	0.4	16.74	8	15	3.3	2.2	17.53	4	29	6.2	2.2
18.60	2	37	95.0	48.5	17.96	2	45	96.8	0.6	18.03	2	61	0.3	0.9	17.94	2	16	3.4	1.5	18.67	2	29	6.3	44.1
17.22	4	37	95.0	56.0	14.81	11	46	96.9	51.4	17.32	4	61	0.3	2.4	13.67	13	16	3.4	4.2	16.90	7	29	6.3	44.4
14.07	13	37	95.1	49.6	17.27	6	46	96.9	56.2	18.28	2	61	0.3	2.7	18.45	2	17	3.6	43.2	17.60	4	29	6.4	43.2
17.41	4	37	95.1	55.1	17.34	4	46	96.9	59.4	16.65	7	61	0.3	2.8	17.42	4	17	3.6	0.4	15.58	9	30	6.4	1.2
16.91	5	37	95.1	56.9	17.10	2	46	97.0	45.6	17.58	4	61	0.3	3.4	17.70	2	16	3.6	4.4	17.09	7	30	6.6	0.4
18.56	2	38	95.2	51.0	18.64	2	46	97.0	47.6	18.58	2	62	0.4	43.4	17.07	2	17	3.7	4.8	17.70	2	30	6.6	3.0
15.35	9	38	95.2	52.4	18.32	2	46	97.0	48.9	18.47	2	62	0.4	43.5	18.52	2	17	3.8	42.4	17.69	4	31	6.8	0.8
17.00	5	38	95.3	54.4	17.98	2	46	97.0	52.2	17.36	4	62	0.5	0.4	19.02	2	18	3.8	0.8	17.28	4	32	6.9	2.0
17.41	4	38	95.3	54.7	15.97	8	46	97.0	56.7	18.22	2	62	0.5	3.6	17.47	2	18	3.8	5.0	14.78	11	32	6.9	2.6
16.18	8	39	95.4	48.1	18.06	2	46	97.0	57.2	17.44	4	63	0.6	0.4	16.03	8	18	4.0	2.0	17.66	4	32	6.9	3.4
17.03	4	39	95.4	51.2	17.30	2	46	97.0	58.4	18.68	2	63	0.6	2.2	16.78	7	18	4.0	2.2	18.31	2	32	7.0	3.2
18.46	2	39	95.4	53.9	17.66	4	46	97.0	59.0	18.75	2	63	0.7	2.2	17.70	2	18	4.0	3.2	16.45	8	32	7.0	4.1
18.31	2	39	95.4	57.2	17.18	4	46	97.0	59.2	18.24	2	63	0.7	3.0	17.72	4	19	4.1	0.8	18.22	2	33	7.1	0.8
18.42	2	39	95.4	58.7	18.60	2	46	97.0	0.8	18.62	2	63	0.8	0.0	17.60	2	19	4.1	2.8	15.52	9	34	7.3	44.4
15.55	9	39	95.4	59.6	16.15	8	47	97.1	47.0	18.12	2	64	0.8	2.9	17.68	2	19	4.1	3.2	17.91	2	34	7.4	44.1
17.54	4	39	95.5	48.6	18.36	2	47	97.1	58.0	18.18	2	64	0.9	1.4	17.46	4	20	4.2	1.0	18.12	2	34	7.4	44.2
15.45	9	39	95.5	56.4	16.70	7	47	97.2	49.8	18.32	2	64	0.9	3.6	18.78	2	19	4.2	1.8	16.60	5	34	7.4	4.4
16.73	7	39	95.5	57.0	16.58	7	47	97.2	51.8	17.44	4	65	1.0	1.1	17.58	2	19	4.2	2.4	18.00	2	35	7.5	1.3
14.70	11	39	95.6	47.2	18.69	2	47	97.2	53.1	15.92	8	65	1.1	44.0	16.32	8	20	4.4	2.4	18.24	2	35	7.6	43.3
17.70	4	40	95.6	51.6	16.71	5	47	97.2	53.4	18.12	2	66	1.2	43.4	18.03	2	21	4.6	44.6	17.39	4	35	7.6	43.8
14.77	11	40	95.6	53.4	18.64	2	47	97.2	1.4	15.88	8	66	1.2	1.4	15.15	10	21	4.6	0.6	16.77	7	35	7.6	1.0
16.28	8	39	95.6	54.2	18.08	2	48	97.5	45.0	18.66	2	66	1.2	3.0	18.22	2	21	4.6	4.2	18.52	2	35	7.6	1.8
14.64	12	40	95.7	57.9	18.79	2	49	97.6	1.9	17.42	2	66	1.3	1.7	18.27	2	22	4.7	1.8	18.24	2	35	7.6	1.9
17.80	4	41	95.8	52.0	17.62	4	50	97.9	45.0	16.54	7	66	1.4	43.5	16.61	5	22	4.8	42.6	17.39	4	35	7.6	3.2
16.85	7	41	95.8	53.2	17.84	2	51	98.0	1.8	18.55	2	66	1.4	3.6	17.14	4	22	4.8	45.0	18.44	2	35	7.6	3.7
17.54	4	40	95.8	53.3	18.88	2	52	98.3	1.3	18.66	2	67	1.6	2.8	17.44	4	23	4.9	44.8	18.83	2	35	7.7	45.0
12.73	14	41	95.8	53.7	15.61	8	52	98.3	3.2	18.66	2	67	1.6	3.5	12.87	14	23	4.9	1.4	18.43	2	36	7.8	0.6
18.40	2	41	95.8	54.0	15.50	9	53	98.4	1.6	16.99	6	67	1.6	4.2	17.65	2	23	4.9	4.2	18.04	2	36	7.8	0.8
18.56	2	41	95.8	59.0	18.64	2	54	98.6	1.2	15.64	9	68	1.7	1.4	13.42	11	23	4.9	4.4	16.99	7	36	7.9	3.4

25 prec. + $95^s.9$, − 0′ 52″

301s—340s				341s—380s				381s—420s				421s—460s				461s—473s			
Mag.	α 24^{m}	x	$y+50'$ / $y-10'$	Mag.	α 24^{m}	x	$y+50'$ / $y-10'$	Mag.	α 24^{m}	x	$y+50'$ / $y-10'$	Mag.	α 25^{m}	x	$y+50'$	Mag.	α 25^{m}	x	$y+50'$
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
17.58 4	37	8.0	1.4	18.06 2	48	10.3	1.7	15.91 8	58	12.6	58.8	17.99 2	2	13.6	50.4	15.55 9	11	15.3	54.6
15.90 8	37	8.0	2.3	18.20 2	48	10.4	44.8	17.98 2	58	12.6	59.4	16.54 8	3	13.6	55.8	12.13 12	11	15.4	49.9
18.54 2	37	8.1	43.2	18.29 2	48	10.5	45.0	18.19 2	58	12.6	59.7	17.70 2	3	13.6	56.5	17.50 4	11	15.4	52.8
16.92 7	38	8.2	42.8	15.58 9	48	10.5	0.8	15.50 9	58	12.6	0.3	16.98 5	3	13.7	48.8	16.89 5	12	15.6	49.8
18.38 2	38	8.2	43.9	17.23 4	49	10.6	44.0	18.63 2	59	12.8	48.0	16.22 6	4	13.8	48.4	17.00 7	12	15.7	50.8
16.82 5	38	8.2	0.8	16.61 6	49	10.6	1.2	16.78 7	59	12.8	49.8	17.12 4	4	13.8	48.8	16.94 6	12	15.7	57.0
18.42 2	38	8.3	43.4	18.11 2	49	10.7	1.1	17.85 2	59	12.8	58.2	17.65 2	4	13.8	51.7	17.44 4	13	15.8	56.4
18.68 2	38	8.3	45.0	17.30 4	49	10.7	1.6	18.26 2	59	12.9	46.4	18.31 2	3	13.8	55.6	14.72 11	13	15.9	54.4
16.76 7	38	8.4	43.0	17.47 4	50	10.8	44.1	18.58 2	59	12.9	47.4	18.17 2	4	13.8	57.9	14.28 10	13	15.9	55.9
17.80 4	39	8.4	0.9	18.28 2	50	10.8	1.1	16.44 8	60	12.9	55.9	18.73 2	3	13.8	58.2	17.37 4	13	15.9	56.0
16.76 7	39	8.4	3.9	15.72 9	50	10.8	2.6	16.42 6	60	13.0	50.4	13.26 14	4	13.8	58.6	17.55 2	14	16.0	51.6
16.81 5	39	8.5	1.6	14.89 10	50	10.8	3.2	18.53 2	60	13.0	1.4	18.27 2	4	13.9	47.6	17.12 4	14	16.0	55.8
18.77 2	39	8.5	4.1	18.24 2	51	11.0	44.4	18.00 2	60	13.1	46.9	17.43 4	4	13.9	56.8	18.53 2	15	16.2	54.4
18.16 2	40	8.6	3.2	16.15 8	51	11.1	1.4	12.97 14	60	13.1	48.3	17.28 4	4	13.9	57.0				
17.44 4	40	8.8	45.0	14.81 11	51	11.1	2.8	15.62 9	60	13.1	52.6	18.20 2	5	14.0	48.2				
13.91 13	41	8.8	0.1	17.94 2	52	11.2	0.7	18.10 2	60	13.1	53.5	16.41 8	5	14.0	54.4				
17.51 2	41	8.8	4.5	13.30 12	52	11.2	1.0	17.92 2	60	13.1	54.2	13.08 14	5	14.0	59.4				
17.55 2	41	8.9	4.4	18.32 2	52	11.2	2.4	15.16 10	60	13.1	56.9	17.68 2	5	14.1	49.3				
16.94 6	42	9.0	0.2	18.84 2	52	11.3	1.8	18.50 2	60	13.1	57.2	18.65 2	5	14.1	50.8				
18.20 2	41	9.0	1.0	16.62 7	53	11.4	2.7	17.22 2	61	13.1	1.5	18.28 2	5	14.2	47.8				
17.42 4	42	9.0	1.9	16.21 8	53	11.6	44.6	15.65 9	61	13.2	46.4	18.50 2	6	14.2	53.4				
18.75 2	41	9.0	3.0	15.02 10	54	11.8	0.1	18.38 2	61	13.2	47.6	17.24 4	5	14.2	54.0				
18.66 2	42	9.1	43.3	17.98 2	55	11.8	1.4	18.56 2	61	13.2	55.8	17.42 4	5	14.2	56.4				
18.63 2	42	9.2	1.1	17.34 2	55	12.0	1.6	16.86 7	61	13.2	59.8	16.65 5	6	14.2	57.6				
13.58 12	43	9.3	2.0	18.87 2	56	12.1	0.4	17.52 2	61	13.2	0.9	13.92 13	6	14.2	59.0				
15.79 8	43	9.4	43.7	17.73 2	56	12.2	0.4	16.69 7	61	13.3	47.4	17.58 4	6	14.3	47.5				
14.03 13	43	9.4	44.3	18.18 2	56	12.2	0.6	17.49 4	61	13.3	47.7	18.44 2	6	14.3	55.6				
17.74 2	44	9.5	2.9	18.24 2	57	12.4	50.0	15.75 9	61	13.3	48.2	16.00 8	6	14.4	51.8				
17.22 6	44	9.6	44.0	17.58 4	57	12.4	51.8	18.44 2	61	13.3	50.2	15.37 9	6	14.4	54.1				
18.30 2	44	9.6	44.8	15.58 9	57	12.4	56.4	18.63 2	61	13.3	54.4	16.05 8	7	14.6	51.7				
16.14 8	44	9.6	3.6	15.25 9	57	12.4	58.2	17.68 2	61	13.3	58.5	16.94 5	7	14.6	52.4				
18.53 2	45	9.7	3.0	15.82 8	58	12.5	49.2	15.53 9	62	13.4	47.0	13.82 12	7	14.6	53.0				
17.06 7	45	9.8	1.4	14.48 11	58	12.5	51.4	17.20 4	62	13.4	53.4	15.74 8	7	14.6	56.5				
17.39 4	45	9.8	2.4	14.18 11	58	12.5	0.2	16.88 5	62	13.4	53.9	18.18 2	8	14.7	58.4				
17.40 2	46	10.0	43.4	17.80 2	58	12.6	49.8	17.03 6	62	13.4	55.5	18.73 2	8	14.8	53.4				
18.56 2	46	10.0	0.1	15.71 9	58	12.6	50.7	17.65 4	62	13.4	56.0	17.26 6	9	14.9	56.5				
17.75 2	46	10.0	3.8	16.86 4	58	12.6	53.9	17.12 4	62	13.5	48.7	16.38 5	9	14.9	58.6				
17.40 4	47	10.1	0.2	15.79 9	58	12.6	54.5	18.72 2	62	13.5	58.6	17.48 4	10	15.1	49.3				
18.63 2	47	10.2	1.8	15.93 8	58	12.6	54.6	16.86 5	62	13.6	46.6	17.14 6	10	15.1	50.7				
17.78 2	48	10.3	1.0	18.48 2	58	12.6	56.6	18.30 2	63	13.6	47.2	15.59 9	10	15.2	55.1				

25 prec. + $95^{s}9$, − 0′ 54″

7^{h} Area 51. Center for 1900: $7^{h}\ 24^{m} + 30°\ 0'\ (15' \times 15')$ + 29°, + 30°

1—10				11—20				21—30				31—40				41—50			
Mag.	α 23^{m}	x	$y+60'$ / y	Mag.	α 23^{m}	x	$y+60'$ / y	Mag.	α 23^{m}	x	$y+60'$ / y	Mag.	α 23^{m}	x	$y+60'$ / y	Mag.	α 23^{m}	x	$y+60'$ / y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.92 2	46.4	97.07	57 30	14.55 12	50.1	97.87	1 44	13.92 12	53.5	98.60	55 47	16.29 7	58.4	99.66	56 42	17.10 5	59.9	99.98	2 25
17.84 3	46.5	97.09	56 39	16.67 5	50.6	97.97	56 25	18.26 2	54.6	98.83	2 11	15.77 8	58.5	99.68	1 07	17.85 3	60.8	0.17	0 58
18.12 1	46.9	97.17	55 08	17.69 3	50.7	97.99	57 03	18.08 3	54.7	98.86	2 26	14.83 10	58.6	99.70	7 18	15.57 8	61.5	0.32	1 03
14.88 10	47.5	97.31	9 02	16.40 6	50.8	98.01	7 16	15.28 9	54.9	98.90	1 38	17.37 3	59.1	99.80	5 00	16.74 5	61.5	0.33	8 55
17.93 2	47.7	97.35	58 17	16.34 5	51.0	98.04	57 58	17.81 2	55.1	98.94	55 51	16.07 5	59.3	99.85	8 55	15.02 9	61.6	0.35	57 54
17.53 3	48.4	97.51	55 37	16.16 7	51.4	98.14	8 35	17.96 2	55.3	98.98	58 23	18.10 2	59.3	99.86	55 19	17.17w 2	62	0.4	8 18
17.73 2	49.6	97.74	55 49	16.74 5	52.2	98.32	2 27	18.26 2	56.2	99.18	3 38	16.22 8	59.4	99.87	59 08	13.83 15	61.9	0.42	8 27
14.68 10	49.6	97.74	8 42	17.48 2	52.3	98.35	59 16	17.84 3	56.5	99.25	3 02	14.41 11	59.6	99.93	4 40	14.78 10	62.0	0.44	9 14
17.12 3	50.0	97.84	0 47	16.86 4	52.6	98.40	8 37	15.36 11	56.7	99.29	8 48	15.93 8	59.8	99.96	1 45	16.80 5	62.0	0.44	56 35
16.20 8	50.0	97.85	6 39	16.22 8	53.2	98.53	7 24	17.78 3	57.4	99.45	56 51	17.12 5	59.8	99.97	4 01	16.84 5	62.4	0.53	1 22

25 prec. + $94^{s}8$, − 3′ 0″

7^{h} Area 51 + 29°, + 30°

51—90				91—130				131—170				171—209			
Mag.	α 24^{m}	x	$y+60'$ y	Mag.	α 24^{m}	x	$y+60'$ y	Mag.	α 24^{m}	x	$y+60'$ y	Mag.	α 24^{m}	x	$y+60'$ y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
13.27 14	2.4	0.53	6 00	15.07 11	13.4	2.91	55 58	15.84 7	29.9	6.48	2 45	17.53 3	46.0	9.97	8 30
15.43 10	2.5	0.55	9 55	14.95w 8	13.8	2.99	4 30	17.01 3	30.1	6.52	7 45	17.11 3	46.2	10.00	56 11
17.02 5	2.6	0.56	7 30	11.91w 10	14.6	3.17	57 20	17.82 3	31.1	6.72	9 22	16.46 5	47.4	10.26	5 04
15.46 8	3.0	0.66	56 39	16.22 8	14.9	3.23	5 26	17.90 3	31.1	6.73	58 41	17.88 3	47.5	10.28	1 30
18.01 2	3.1	0.67	5 25	16.88 5	15.1	3.27	55 46	16.75 5	31.4	6.79	1 18	17.96 2	47.8	10.34	58 58
17.90 3	3.1	0.68	5 16	15.24 9	15.2	3.31	8 57	18.22 1	31.7	6.86	0 41	16.35 6	47.9	10.37	2 45
16.11 6	3.1	0.68	9 24	13.63 14	15.7	3.40	3 42	13.36 12	31.8	6.88	3 09	14.37 11	48.1	10.42	1 07
17.76 3	3.8	0.82	56 19	18.27 1	15.7	3.41	57 55	17.20 3	32.2	6.98	7 17	17.84 3	48.2	10.44	6 07
17.95 2	4.0	0.86	57 00	16.89 5	15.9	3.45	5 48	17.98 2	34.0	7.36	6 34	14.64 10	48.2	10.45	4 25
16.92 3	4.0	0.86	6 04	16.40 8	16.2	3.50	2 32	17.53 3	34.5	7.46	1 24	17.63 3	48.5	10.51	56 31
16.69 5	4.5	0.97	59 24	18.08 2	17.3	3.74	4 53	16.40 5	34.5	7.47	56 21	17.78 3	48.8	10.57	58 28
14.90 10	5.6	1.23	56 54	17.92 2	17.6	3.80	56 31	16.77 3	34.6	7.48	59 59	18.27 1	49.2	10.65	0 20
17.60 3	5.7	1.24	55 21	15.36 10	18.7	4.04	58 28	17.95 3	34.6	7.48	3 23	16.01 8	49.4	10.69	1 21
15.03w 7	5.7	1.25	4 29	17.08 3	18.7	4.06	1 33	16.62 5	35.5	7.68	4 13	16.62 5	49.4	10.71	55 56
17.76 3	5.9	1.28	59 08	16.89 5	19.2	4.16	9 10	17.64 3	35.5	7.69	59 20	13.46 13	49.7	10.76	6 29
17.28 3	6.0	1.31	0 30	17.21 3	19.3	4.19	8 19	16.46 7	35.7	7.72	5 14	16.81 5	49.7	10.77	7 28
17.75 3	6.2	1.35	56 44	16.95 5	19.8	4.29	0 29	17.78 3	35.9	7.77	5 11	17.86 2	49.7	10.77	59 08
17.73 3	6.6	1.43	8 59	14.28 10	19.9	4.31	58 13	15.73 8	36.5	7.90	56 38	15.93 8	50.6	10.94	58 56
17.91 2	6.8	1.48	5 24	16.32 6	20.0	4.33	57 47	17.86 3	36.5	7.91	58 01	14.22 10	50.8	10.99	9 38
16.96 5	7.1	1.54	55 03	10.71w 9	21.4	4.63	2 15	17.78 3	36.7	7.95	5 54	16.36 5	51.1	11.07	7 53
15.80 8	7.4	1.60	0 13	14.06 11	21.6	4.68	7 36	16.47 6	36.8	7.97	57 00	16.71 5	51.1	11.07	56 28
16.29 8	7.7	1.67	58 32	15.84 8	22.3	4.82	4 16	14.41 10	37.2	8.06	56 29	17.70 3	51.5	11.15	1 34
17.94 2	8.0	1.73	6 50	16.32 6	23.1	5.00	4 25	17.03 3	37.6	8.15	9 08	15.37 10	51.7	11.19	9 41
17.59 3	8.1	1.75	5 11	14.64 9	23.5	5.08	4 31	17.34 3	38.1	8.25	5 24	17.80 2	51.7	11.20	8 32
14.10 12	9.0	1.95	3 47	17.17 3	23.7	5.12	9 14	18.00 2	38.1	8.25	58 18	16.85 3	51.8	11.22	9 50
17.50 3	9.2	2.00	57 48	15.34 10	24.1	5.22	55 13	16.65 5	38.9	8.42	0 35	17.87 2	51.9	11.25	7 56
17.68 3	9.9	2.15	55 12	17.92 2	24.2	5.25	58 10	15.05 10	39.6	8.58	1 39	17.08 3	51.9	11.25	56 27
17.04 5	10.4	2.26	55 40	18.00 3	24.4	5.29	8 57	17.59 3	40.4	8.74	6 34	18.02 2	52.1	11.28	8 26
17.63 3	10.4	2.26	9 58	14.59 11	24.6	5.33	0 04	15.37 8	40.7	8.80	3 33	18.22 1	52.3	11.32	5 33
15.05 9	10.8	2.34	0 54	16.72 5	25.3	5.49	9 01	16.03 8	41.0	8.88	4 22	17.92 3	52.4	11.35	5 00
16.68 5	10.9	2.36	2 18	17.86 3	25.5	5.52	8 38	17.18 3	41.4	8.97	6 59	17.76 2	53.0	11.47	7 30
17.31 3	11.2	2.42	6 01	17.67 3	26.0	5.63	8 39	15.29 9	41.6	9.00	7 51	17.94 3	53.9	11.67	59 46
17.31 3	11 4	2.46	57 21	14.19 11	26.4	5.73	5 46	16.64 5	42.9	9.29	5 18	16.68 5	54.6	11.82	1 21
13.62 12	11.9	2.57	57 11	16.58 6	26.6	5.76	1 14	18.17 1	43.4	9.39	55 39	17.86 3	55.0	11.91	2 59
16.26 8	12.1	2.62	1 26	18.12 2	26.8	5.80	57 34	17.92 3	44.4	9.61	57 51	16.05 8	55.2	11.95	7 14
13.43: 1	12 8	2.78	4 56	17.89 2	27.4	5.93	9 54	16.92 3	45.0	9.75	8 47	16.67 5	55.2	11.95	9 00
18.10 3	12.9	2.81	7 01	17.01 5	28.4	6.15	5 09	16.72 5	45.3	9.80	8 48	18.12 1	55.2	11.96	0 12
16.46 7	13.0	2.83	6 30	17.52 3	28.7	6.23	56 28	16.86 3	45.5	9.85	9 08	13.52 13	55.4	11.99	2 08
12.93w 11	13 0	2.83	57 30	18.24 2	29.7	6.42	3 04	18.12 1	45.7	9.89	7 55	17.54 3	55.4	11.99	8 27
15.96 5	13.3	2.88	8 56	17.40 5	29.8	6.44	59 59	17.63 3	45.7	9.91	58 13				

25 prec. + 94ˢ.8, − 3′ 0″

7^{h} Area 51. Supplementary Stars + 29°, + 30°

1s—10s				11s—20s				21s—30s				31s—40s				41s—50s			
Mag.	α 23^{m}	x	$y+60'$ y	Mag.	α 23^{m}	x	$y+60'$ y	Mag.	α 23^{m}	x	$y+60'$ y	Mag.	α 23^{m}	x	$y+60'$ y	Mag.	α 24^{m}	x	$y+60'$ y
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
15.60 7	30	93.5	59.8	17.60 2	36	94.8	0.6	17.45 2	42	96.0	56.2	16.89 2	45	96.8	10.4	15.74 7	1	0.2	10.9
13.00 12	30	93.6	3.5	17.35 2	37	95.1	3.4	16.60 4	42	96.0	59.4	17.07 2	46	96.9	2.2	16.08 7	1	0.3	52.6
9.92 7	31	93.8	57.9	17.63 2	37	95.1	7.8	17.51 2	43	96.2	56.2	16.49 4	46	96.9	8.4	15.14 8	3	0,6	10.7
15.22 8	32	93.9	5.5	16.06 7	38	95.2	59.1	15.15 5	42	96.2	10.0	16.38 4	46	96.9	8.6	16.69 4	3	0.7	52.5
17.51 2	33	94.1	5.4	17.35 2	38	95.2	1.9	17.69 2	43	96.3	58.3	14.78 9	49	97.6	54.5	17.13 2	4	0.8	54.3
17.49 2	34	94.4	5.4	17.30 2	39	95.4	59.2	17.46 2	44	96.4	59.4	16.61 4	52	98.4	53.4	15.71 7	4	0.8	10.5
15.60 7	35	94.5	2.4	17.32 2	39	95.4	2.8	16.54 4	43	96.4	6.4	15.52 7	55	98.9	12.0	13.31 12	5	1.0	11.0
16.84 2	35	94.6	56.8	17.20 2	41	95.8	55.1	16.91 2	45	96.7	1.3	15.10 9	55	99.0	52.6	14.60 10	5	1.1	54.8
17.55 2	36	94.7	56.9	15.80 7	41	95.8	59.2	17.38 2	45	96.8	59.8	16.11 7	60	0.0	11.2	16.76 2	6	1.2	10.5
17.37 2	36	94.8	56.2	15.84 7	41	95.8	7.7	13.28 13	45	96.8	5.0	16.65 4	61	0.2	53.6	17.29 2	6	1.3	51.4

25 prec. + 94ˢ.8, − 3′ 0″

Area 51. Supplementary Stars

51s—70s				71s—90s				91s—110s				111s—125s			
Mag.	α 24^m	x	$y+60'$ y	Mag.	α 24^m	x	$y+60'$ y	Mag.	α 24^m	x	$y+60'$ y	Mag.	α 25^m	x	$y+60'$ y
	s	′	′		s	′	′		s	′	′		s	′	′
14.39 10	6	1.4	12.0	17.39 2	24	5.1	54.1	13.82 7	38	8.2	10.2	16.74 4	2	13.4	7.6
17.62 2	9	1.9	55.0	16.53 4	24	5.3	51.0	14.27 5	38	8.3	10.2	16.63 4	3	13.6	57.5
17.02 4	11	2.3	10.5	17.34 2	24	5.3	51.2	16.61 4	46	10.0	54.4	14.80 9	5	14.0	8.8
15.89 6	11	2.4	11.8	16.45 5	25	5.4	53.4	17.76 2	47	10.0	11.1	17.57 2	5	14.1	6.5
15.79 3	11	2.4	13.2	15.54 7	28	6.1	13.6	16.08 5	47	10.2	52.6	16.60 4	6	14.2	1.4
17.18 2	12	2.7	11.6	16.91 2	29	6.4	50.8	17.29 2	48	10.4	52.5	14.45 9	6	14.3	0.4
14.72 10	13	2.8	52.2	16.90 4	30	6.4	52.9	17.39 2	49	10.7	52.6	14.58 10	6	14.3	6.4
15.18 9	13	2.8	53.2	15.93 4	30	6.4	53.5	16.99 2	50	10.7	10.3	17.63 2	7	14.5	0.0
17.55 2	13	2.9	53.8	16.69 4	32	6.9	10.2	16.58 4	50	10.9	11.5	17.70 2	8	14.6	1.0
16.37 4	13	2.9	12.6	17.04 4	32	6.9	12.1	16.71 2	51	11.0	53.9	17.33 2	8	14.8	56.8
16.61 4	14	3.0	11.8	11.53 10	32	7.0	52.6	14.77 8	56	12.1	58.2	16.26 6	8	14.8	2.9
17.68 2	15	3.2	10.8	16.66 4	32	7.0	54.4	14.54 10	56	12.2	8.7	16.85 2	10	15.0	59.4
17.60 2	15	3.2	11.6	11.81 13	33	7.1	13.1	16.47 4	57	12.3	53.6	15.97 7	10	15.2	2.7
15.98 7	16	3.4	10.2	14.09 11	34	7.3	53.6	17.49 2	57	12.4	1.6	17.63 2	10	15.2	4.2
17.46 2	17	3.7	51.0	16.14 7	34	7.3	54.7	16.15 7	58	12.6	3.8	16.62 4	11	15.4	59.1
15.83 7	17	3.8	10.7	15.22 9	35	7.5	10.7	16.95 4	59	12.7	6.4				
16.73 4	21	4.6	54.9	15.75 7	35	7.6	52.6	16.03 7	60	13.0	4.3				
17.55 2	22	4.8	53.3	14.80 9	35	7.6	10.5	13.10 11	61	13.1	4.0				
16.66 4	23	4.9	53.2	16.59 4	36	7.7	52.3	16.45 4	61	13.2	54.4				
17.15 2	23	5.0	11.9	17.45 2	36	7.8	51.5	13.70 11	61	13.2	57.8				

25 prec. + 94ˢ.8, − 3′ 0″

8^h + 29°, + 30°

Area 52. Center for 1900: 8^h 26^m + 30° 0′ (15′ × 15′)

1—30				31—60				61—90				91—92			
Mag.	α 25^m	x	$y+60'$ y	Mag.	α 25^m	x	$y+60'$ y	Mag.	α 25^m	x	$y+60'$ y	Mag.	α 26^m	x	y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
16.95 4	10.8	89.35	5 14	16.30 8	35.5	94.70	0 04	18.01 1	58.6	99.70	3 38	16.08 8	16.1	3.48	7 05
16.69 7	11.4	89.48	55 43	17.55 3	36.3	94.87	9 38	15.56 9	58.9	99.76	3 38	17.18 3	16.1	3.49	2 19
17.92 3	12.0	89.61	7 09	16.69 8	36.7	94.97	57 16	18.66 3	60.2	0.04	1 56				
17.74 3	12.2	89.66	8 28	15.99 9	36.9	95.01	56 22	16.69 7	60.7	0.16	3 13				
13.99 11	14.6	90.17	4 41	18.73 1	38.0	95.24	5 18	16.22 8	61.2	0.26	1 31				
18.26 3	15.5	90.37	7 03	17.03 5	38.8	95.43	6 31	16.22 7	61.7	0.38	3 38				
16.66 8	18.4	90.99	6 27	14.09 10	39.0	95.46	0 03	15.68 8	62.2	0.48	1 33				
16.51 8	20.6	91.47	59 29	16.22 8	40.1	95.69	4 57	16.73 6	64.2	0.91	8 31				
16.22 7	21.0	91.57	4 36	18.09 3	40.1	95.71	7 11	18.66 1	64.8	1.05	59 22				
16.41 8	21.3	91.63	56 15	17.73 3	40.9	95.86	6 45	15.91 9	65.1	1.10	55 58				
16.51 7	21.6	91.69	4 46	11.93w 12	42.1	96.13	58 10	18.29 3	65.1	1.13	58 50				
17.95 3	21.8	91.73	6 01	8.53w 8	43.4	96.40	2 53	18.19 3	65.9	1.28	58 19				
16.13 7	22.5	91.89	57 37	16.47 8	44.2	96.59	57 08	18.76 2	66.1	1.33	5 03				
14.26 9	23.2	92.05	9 51	14.41 10	45.9	96.96	5 12	17.68 3	67.0	1.53	55 52				
18.12 3	24.0	92.20	9 48	18.02 3	46.3	97.05	8 54	18.42 2	68.9	1.92	58 00				
14.04w 10	24.0	92.21	5 50	16.89 7	46.9	97.16	59 52	18.66 1	69.6	2.08	7 53				
18.59 1	24.2	92.26	7 32	18.92 2	47.6	97.32	4 54	15.70n 1	70.2	2.21	2 12				
16.95 5	24.5	92.33	0 21	18.59 3	49.4	97.71	2 00	18.40 2	70.6	2.31	58 31				
17.73 3	24.7	92.37	4 07	17.09 7	50.1	97.87	58 37	16.09 8	71.0	2.39	9 13				
18.37 3	26.3	92.70	3 44	18.40 2	51.2	98.09	55 31	14.86 10	71.1	2.41	1 36				
18.39 3	26.5	92.74	58 03	17.78 3	52.8	98.44	3 40	18.19 3	72.0	2.61	5 57				
16.12 7	26.9	92.85	56 11	10.89w 12	52.9	98.47	57 28	18.38 3	72.1	2.62	6 30				
17.96 3	27.4	92.94	59 01	14.36 11	53.1	98.50	6 05	16.22 7	72.2	2.65	0 51				
18.12 3	27.4	92.95	58 49	17.95 3	54.8	98.86	8 38	17.94 3	72.8	2.78	8 23				
18.59 1	27.5	92.97	0 34	17.80 3	55.1	98.94	59 22	18.33 3	73.2	2.87	7 39				
15.40 8	28.9	93.27	59 14	18.65 2	55.6	99.05	6 02	17.88 3	74.0	3.02	5 20				
18.32 3	29.0	93.29	0 50	17.91 3	55.7	99.07	55 50	16.59 8	74.2	3.07	2 36				
16.76 8	32.1	93.96	8 58	17.70 3	55.8	99.10	2 10	16.21 8	74.2	3.08	3 32				
17.27 5	32.9	94.15	5 20	16.56 7	57.2	99.41	3 04	15.26 8	74.5	3.15	59 11				
18.06 3	33.2	94.20	59 21	14.01 10	58.0	99.57	8 27	15.04 9	75.1	3.27	59 15				

25 prec. + 92ˢ.2, − 4′ 58″

Area 52. Supplementary Stars

+ 29°, + 30°

1s—30s					31s—60s					61s—78s				
Mag.		α 24^m	x	$y+60'$ / y	Mag.		α 25^m	x	$y+60'$ / y	Mag.		α 26^m	x	$y+60'$ / y
		s	′	′			s	′	′			s	′	′
18.04	2	52	85.2	2.3	17.96	2	18	90.8	12.2	16.39	7	10	2.1	10.1
17.59	2	52	85.4	5.6	13.90	10	18	90.9	54.0	15.01	8	11	2.3	53.3
17.88	2	53	85.6	3.6	16.23	6	18	90.9	54.6	16.40	7	12	2.6	54.1
16.53	6	54	85.7	5.3	17.72	2	19	91.1	54.4	16.59	4	19	4.0	54.6
17.72	2	54	85.8	5.8	14.98	8	20	91.3	53.9	17.76	2	19	4.2	8.6
17.96	2	56	86.1	6.4	16.07	6	20	91.4	12.6	16.19	6	20	4.3	1.4
17.76	2	57	86.3	59.5	15.68	6	27	92.8	11.2	17.45	2	20	4.4	55.4
17.96	2	57	86.4	59.7	12.30	12	28	93.1	10.6	18.04	2	21	4.4	9.2
14.88	8	57	86.4	3.4	16.55	6	29	93.2	11.6	16.71	6	24	5.1	0.4
18.02	2	58	86.6	57.4	16.84	2	29	93.3	53.8	17.92	2	24	5.1	1.0
15.28	7	58	86.6	4.6	16.65	6	32	93.9	11.1	15.58	8	24	5.3	59.4
15.06	9	60	87.0	9.2	16.69	4	34	94.3	12.4	17.82	2	27	5.9	56.3
15.82	6	60	87.1	1.7	16.50	6	34	94.3	14.3	17.70	2	28	6.0	58.3
18.02	2	61	87.2	6.4	16.15	7	34	94.4	52.0	17.74	2	28	6.1	4.1
13.45	13	61	87.3	6.7	16.40	7	35	94.6	53.2	16.65	4	31	6.6	4.7
18.16	2	62	87.4	4.9	18.04	2	35	94.6	54.4	15.82	6	31	6.8	2.2
15.27	9	62	87.4	7.5	16.01	7	37	95.0	13.4	17.07	2	34	7.3	3.6
16.52	6	62	87.4	8.4	17.56	2	40	95.6	54.8	16.41	7	34	7.4	59.4
17.51	2	64	87.9	58.4	16.44	7	40	95.6	14.4					
17.65	2	66	88.2	4.0	18.16	2	41	96.0	54.0					
16.81	4	66	88.3	0.1	17.90	2	45	96.8	13.2					
17.88	2	66	88.3	5.6	17.54	2	46	97.0	13.2					
16.37	6	67	88.6	8.8	17.82	2	47	97.2	10.3					
17.82	2	67	88.6	10.7	16.28	5	50	97.8	10.5					
17.96	2	68	88.7	0.9	15.38	9	51	98.1	13.1					
16.46	4	68	88.7	9.0	17.98	2	53	98.4	13.2					
18.05	2	68	88.8	58.1	17.44	2	55	99.0	12.4					
17.72	2	72	89.6	10.2	15.06	9	58	99.6	54.4					
17.47	2	75	90.2	55.0	14.32	10	61	0.2	10.2					
16.14	7	75	90.4	12.2	17.82	2	65	1.0	11.2					

25 prec. + 92ˢ.2, − 4′ 58″

9h

Area 53. Center for 1900: 9h 25m + 30° 0′ (20′ × 20′)

+ 29°, + 30°

1—20					21—40					41—60					61—80					81—100				
Mag.		α 23^m	x	$y+60'$ / y	Mag.		α 24^m	x	$y+60'$ / y	Mag.		α 24^m	x	$y+60'$ / y	Mag.		α 24^m	x	$y+60'$ / y	Mag.		α 24^m	x	$y+60'$ / y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
18.80	1	53.1	85.52	53 29	16.12	10	8.0	88.75	55 45	19.02	1	19.6	91.27	2 11	17.94	3	30.5	93.63	8 48	18.22	3	44.6	96.67	0 11
18.66x	1	53.8	85.67	2 05	14.62	13	8.4	88.80	52 08	17.08	5	19.7	91.27	51 25	17.61	3	30.6	93.64	59 20	17.38	4	44.9	96.73	59 30
15.51	10	55.4	86.03	6 49	17.97x	3	8.6	88.88	8 24	18.87x	1	19.7	91.28	9 50	17.59	3	31.3	93.79	55 02	18.44	1	45.3	96.82	5 59
15.30	12	56.7	86.31	2 32	15.80	10	9.0	88.97	8 13	18.06	3	20.1	91.36	6 30	19.17	1	32.0	93.94	59 29	17.90	3	45.9	96.94	4 54
18.87	1	57.0	86.37	1 16	15.83	10	9.1	88.99	56 29	18.12	3	20.5	91.45	2 49	16.59	8	33.1	94.17	52 27	16.53	9	46.3	97.05	6 57
17.77	3	58.6	86.70	59 40	17.95	3	9.4	89.05	59 33	18.05	3	20.7	91.50	7 43	9.53w	6	33.8	94.32	0 43	17.90	3	46.5	97.08	58 38
16.69	5	58.7	86.72	5 59	17.46	4	9.7	89.13	6 38	14.74n	11	22.4	91.86	58 39	19.25	1	34.0	94.38	1 41	17.17	5	46.5	97.09	58 25
15.99	10	58.9	86.77	4 45	18.59	1	10.1	89.21	9 49	16.80	9	23.0	92.01	7 57	18.80	1	34.3	94.45	4 19	17.61	3	47.6	97.33	59 27
13.15w	12	59.2	86.85	57 09	19.02	1	12.4	89.71	1 58	15.66	12	24.3	92.27	55 53	14.17	13	34.4	94.47	1 54	18.05	3	47.9	97.39	0 38
15.69	1	59.6	86.90	50 49	18.09x	3	12.8	89.79	55 32	17.59	3	24.8	92.38	6 53	13.28w	14	35.0	94.59	8 57	13.43w	13	48.0	97.41	6 34
15.00	1	59.9	86.96	50 48	14.34	13	14.7	90.19	59 57	18.02	3	24.8	92.39	55 46	17.20	4	38.7	95.41	9 12	17.94x	3	48.2	97.45	4 59
17.18	4	60.0	87.02	4 50	18.66	1	15.0	90.26	5 00	17.25	5	24.9	92.40	59 50	18.04	3	39.0	95.47	54 26	16.85	7	48.2	97.46	5 26
17.20	4	60.1	87.04	57 13	16.02	10	15.0	90.27	6 40	18.44	1	25.1	92.45	54 20	18.80	1	40.0	95.68	52 02	17.30	3	48.5	97.52	59 07
15.27	12	60.6	87.15	9 11	17.66x	3	15.9	90.46	5 45	18.51	1	25.3	92.49	2 10	16.01	10	40.5	95.79	53 21	16.97	4	49.1	97.65	9 17
17.86	3	61.4	87.32	55 16	16.44	10	16.8	90.65	6 09	17.37	3	25.9	92.63	56 43	18.73	1	42.0	96.11	7 57	17.87	3	49.2	97.66	9 32
18.03	3	61.9	87.42	5 13	19.09	1	16.8	90.65	59 01	19.02	1	26.1	92.66	5 00	19.02	1	42.2	96.16	5 00	18.09	3	49.3	97.68	3 37
16.38	8	62.2	87.46	51 33	14.56	12	18.1	90.93	3 04	18.80	1	26.3	92.71	50 01	16.68	10	42.4	96.21	9 54	16.91	4	49.4	97.70	6 10
18.87	1	63.2	87.70	57 57	17.21	4	18.5	91.02	51 40	17.95	3	26.9	92.85	9 18	19.17	1	43.1	96.34	1 14	16.29	8	50.3	97.90	2 46
18.95	1	67.2	88.58	0 52	15.54	12	18.9	91.09	0 59	18.44	1	27.9	93.06	59 35	16.69	9	43.5	96.43	0 52	18.44	1	50.5	97.95	1 36
18.66	1	67.6	88.67	2 07	19.09x	1	19.1	91.16	0 31	19.17	1	30.3	93.57	3 11	16.72	9	44.4	96.63	57 48	18.25	3	51.6	98.18	2 54

25 prec. + 88ˢ.9, − 6′ 30″

9^{h} Area 53 + 29°, + 30°

101—120				121—140				141—149				1s—7s			
Mag.	α 24^{m}	x	y+60′ / y	Mag.	α 25^{m}	x	y+60′ / y	Mag.	α 25^{m}	x	y+60′ / y	Mag.	α 23^{m}	x	y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
15.38 12	51.9	98.25	59 34	15.43 12	9.1	1.98	3 13	17.64 2	16.0	3.46	55 39	15.31 10	47	84.2	3.1
14.45 13	53.3	98.55	54 49	18.37 1	9.4	2.05	2 38	18.66 1	17.2	3.73	2 48	16.80 8	74	90.0	10.8
18.95 1	53.5	98.61	5 51	18.80 1	9.5	2.07	0 22	18.11 1	20.0	4.32	5 56	14.53 11	78	91.0	10.3
17.10 5	53.8	98.67	59 33	16.98 7	9.6	2.09	56 16	14.44 14	20.0	4.33	59 43	17.72 2	83	92.1	10.3
16.60 10	54.1	98.73	56 09	18.02 3	10.0	2.17	4 47	15.92 11	22.4	4.85	58 03	17.09 4	91	93.6	10.7
19.02 1	55.7	99.07	1 54	17.55 3	10.7	2.32	4 51	18.73 1	23.0	4.98	3 24	17.56 2	101	96.0	11.7
17.88 3	55.8	99.11	1 06	17.11 4	10.9	2.36	1 58	12.06h 1	23.7	5.12	55 22	15.20 10	112	98.3	10.8
14.06 14	58.2	99.61	1 33	17.94 3	11.0	2.39	57 34	14.58 1	23.9	5.18	52 03				
17.44 3	58.3	99.63	57 19	17.59 3	11.7	2.53	55 42	18.24 1	24.1	5.22	1 47				
18.95 1	58.4	99.66	6 04	17.14 5	11.8	2.56	2 54								
17.68 3	58.4	99.66	51 56	15.47 12	13.1	2.85	54 33								
17.82 3	59.7	99.94	54 32	17.60x 3	13.2	2.87	54 01								
18.95 1	59.8	99.97	2 11	18.87 1	13.2	2.87	1 09								
17.11 5	60.7	0.15	57 00	18.80 1	13.3	2.88	0 13								
17.96 3	60.7	0.15	5 56	14.32 1	13.3	2.88	9 33								
17.96 3	63.2	0.69	59 16	18.37 1	14.2	3.07	7 26								
17.92 3	63.2	0.71	8 33	18.87 1	14.3	3.10	1 39								
18.95 1	64.5	0.98	2 48	17.18 3	15.1	3.27	54 01								
18.66 1	68.1	1.76	1 16	17.37d 1	15.4	3.35	56 52								
18.87 1	68.3	1.81	1 05	18.11 1	15.5	3.36	53 08								

25 prec. + 88.ˢ9, − 6′ 30″

10^{h} Area 54. Center for 1900: $10^{h}\ 24^{m}$ + 30° 0′ (20′ × 20′) + 29°, + 30°

1—30				31—60				61—90				91—106				1s—12s			
Mag.	α 23^{m}	x	y+60′ / y	Mag.	α 23^{m}	x	y+60′ / y	Mag.	α 24^{m}	x	y+60′ / y	Mag.	α 24^{m}	x	y+60′ / y	Mag.	α 23^{m}	x	y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
14.02? 1	23.5	92.11	8 45	18.59 2	49.6	97.74	5 52	19.17 1	11.9	2.57	57 21	18.60 2	42.1	9.12	1 09	16.19 5	16	90.5	3.3
18.43 1	23.8	92.14	53 49	18.65 3	51.0	98.04	57 05	19.25 1	12.8	2.77	8 42	19.17 1	43.4	9.42	54 58	17.71 2	17	90.7	1.0
17.67 3	24.4	92.30	5 56	17.41 3	53.5	98.58	51 09	15.89 9	13.6	2.94	2 29	18.46 3	44.4	9.60	56 11	17.59 2	18	90.9	1.3
16.39 6	25.9	92.60	54 35	17.61 3	54.3	98.76	51 40	18.97 2	17.0	3.68	58 18	18.75 1	46.9	10.14	4 34	14.79 9	44	96.6	10.6
15.74 7	28.2	93.12	59 08	18.76 2	54.5	98.81	58 56	19.25 1	17.3	3.75	7 30	18.26 3	47.0	10.17	58 40	10.01 8	48	97.3	11.6
18.17 2	28.8	93.26	56 36	18.48 3	55.2	98.98	51 28	19.17x 1	17.6	3.82	53 06	19.00x 1	48.0	10.40	8 22	18.05 2	65	1.2	10.7
18.48 2	28.8	93.26	8 45	18.53 2	55.5	99.03	9 46	16.66 6	18.3	3.97	6 45	18.09 3	50.0	10.82	7 40	17.75 2	67	1.5	10.8
14.59 9	29.2	93.35	0 43	18.13 3	56.1	99.16	5 03	17.25 3	20.5	4.44	57 50	19.00x 1	50.1	10.84	8 29	12.88 13	88	6.1	10.2
19.17 1	30.4	93.60	4 25	17.92 3	56.5	99.24	56 09	15.85 9	21.0	4.54	2 05	15.66h 1	50.2	10.90	51 39	15.39 7	90	6.4	11.4
15.30h 1	32.6	94.06	50 21	18.69 2	56.9	99.33	56 56	18.52 2	21.5	4.64	3 16	19.09 1	50.6	10.96	58 15	16.37 3	103	9.2	10.1
19.17x 1	32.6	94.08	56 45	19.09 1	57.0	99.34	51 13	19.42 1	21.9	4.74	3 59	17.82 3	50.8	10.99	1 12	17.95 2	116	12.1	2.6
19.09 1	33.9	94.35	8 13	18.48 3	57.6	99.48	5 16	16.47 6	22.1	4.79	9 56	18.63 2	52.1	11.28	3 23	13.71 11	121	13.2	0.3
12.89h 1	36.6	94.92	51 45	15.40 9	58.9	99.77	8 52	17.53 3	22.2	4.80	5 50	18.43 1	52.7	11.40	59 00				
15.15 9	38.5	95.35	54 21	18.72 2	59.3	99.86	56 42	19.42 1	24.3	5.27	3 39	18.51 1	53.1	11.50	55 11				
18.62 2	38.5	95.36	59 04	17.49 3	59.6	99.93	50 43	17.63 3	24.5	5.31	56 59	18.00 3	53.9	11.67	59 22				
16.09 7	39.0	95.46	1 10	18.93 2	60.6	0.12	0 05	18.40 3	25.0	5.43	55 48	18.84 1	55.1	11.95	50 13				
17.44 3	39.9	95.66	7 06	18.52 3	62.1	0.46	53 08	13.53 13	28.5	6.18	51 48								
16.86 4	40.0	95.68	56 30	14.71 11	62.1	0.47	7 21	13.54 12	28.6	6.20	51 23								
17.55 3	40.1	95.71	9 22	18.40 2	63.2	0.71	52 19	19.34 1	32.2	6.97	3 35								
18.61 2	41.1	95.91	8 07	18.23 3	63.5	0.76	8 30	17.93 3	32.3	7.01	9 10								
18.67 2	42.0	96.11	3 10	18.82 2	65.3	1.16	5 17	16.90 3	33.1	7.17	56 47								
*	42.4	96.21	0 12	14.39 12	67.7	1.66	4 08	18.58 2	33.2	7.18	1 37								
17.63 3	43.6	96.45	4 00	14.53 12	67.8	1.68	7 04	14.59 1	36.5	7.92	51 12								
17.69 3	45.0	96.76	4 49	10.23w 10	68.2	1.77	1 27	17.18 3	36.9	7.99	59 44								
19.25? 1	45.2	96.81	1 26	19.25 1	69.0	1.96	59 44	19.17 1	37.5	8.13	55 36								
18.01 3	45.6	96.88	9 59	19.50x 1	69.1	1.97	59 33	17.16 3	38.5	8.34	57 05								
18.39 3	45.9	96.94	1 14	19.25 1	70.2	2.22	54 35	16.16 7	40.7	8.81	57 39								
19.25 1	46.7	97.13	2 38	11.19w 12	70.7	2.33	0 19	18.52 2	40.9	8.85	55 17								
16.45 7	47.0	97.18	0 14	18.15 3	70.8	2.35	53 28	18.92 1	41.4	8.98	54 23								
18.73 3	47.7	97.33	54 39	14.06 12	71.4	2.46	5 21	18.42 2	41.7	9.03	1 59								

25 prec. + 84.ˢ7, − 7′ 38″

11^{h}

Area 55. Center for 1900: 11^{h} 30^{m} + 30° 0′ (20′ × 20′)

+ 29°, + 30°

1—20				21—40				41—49				1s—5s			
Mag.	α 29^{m}	x	$y+60'$ / y	Mag.	α 29^{m}	x	$y+60'$ / y	Mag.	α 30^{m}	x	$y+60'$ / y	Mag.	α 29^{m}	x	$y+60'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
17.80 1	0.4	87.10	7 08	17.65 3	34.3	94.43	53 18	18.03 1	12.9	2.79	2 53	16.62 5	29	93.2	48.6
16.06 1	2.8	87.61	51 20	16.55 6	34.3	94.44	8 49	18.12 2	16.6	3.60	57 37	12.93 10	38	95.2	49.4
17.62 1	3.0	87.67	7 58	17.85 3	35.0	94.58	5 28	15.20 10	18.5	4.01	6 39	17.25 2	41	95.8	47.9
14.16 12	4.8	88.04	4 51	17.80 3	37.7	95.16	51 46	16.03 6	20.2	4.37	5 09	17.78 2	54	98.7	49.3
17.27 1	8.5	88.84	7 22	17.88 3	38.6	95.37	59 34	15.15 10	23.5	5.09	56 46	16.24 5	96	7.8	57.6
14.60 10	9.6	89.09	58 24	18.14 1	39.0	95.46	56 40	16.77 5	23.9	5.17	59 25				
17.75 3	9.9	89.13	52 12	16.08 6	41.3	95.95	57 09	13.72 13	30.3	6.57	59 42				
13.24w13	11.4	89.49	57 40	17.96 3	41.5	96.00	55 12	17.74 1	30.3	6.57	8 57				
12.53w11	11.7	89.55	57 28	16.72 6	43.2	96.37	50 34	12.34w15	30.8	6.66	2 03				
17.14 3	21.1	91.56	51 34	15.87 6	43.3	96.38	50 51								
15.37 9	22.9	91.98	5 25	13.56w12	47.4	97.28	55 37								
17.05 4	24.7	92.36	58 49	**10.08w11**	**47.5**	**97.30**	**58 43**								
17.91 3	25.2	92.45	53 41	18.15 3	49.5	97.73	57 35								
16.27 6	25.9	92.60	50 29	17.44 3	56.6	99.27	9 26								
17.03 3	27.0	92.84	51 17	16.27 6	65.7	1.25	1 22								
16.72 6	27.1	92.89	59 35	17.00 5	68.5	1.85	2 34								
16.90 4	27.7	93.00	50 41	15.42 9	69.1	1.98	8 44								
17.65 3	29.5	93.38	54 01	17.59 3	69.8	2.11	54 41								
15.59 8	31.6	93.85	52 56	15.59 9	71.4	2.47	8 47								
10.74w13	32.2	93.98	6 56	15.76 6	71.9	2.58	1 25								

25 prec. + $79^{s}.3$, − 8′ 17″

11^{h}

Area 56. Center for 1900: 11^{h} 58^{m} + 29° 40′ (20′ × 20′)

+ 29°

1—30				31—60				61—90				91—93				1s—5s			
Mag.	α 57^{m}	x	$y+40'$	Mag.	α 58^{m}	x	$y+40'$	Mag.	α 58^{m}	x	$y+40'$	Mag.	α 58^{m}	x	$y+40'$	Mag.	α 57^{m}	x	$y+40'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
18.05 1	24.7	92.35	48 01	14.87 10	4.1	0.91	34 32	18.20 1	21.0	4.56	44 34	16.79 5	47.6	10.36	43 22	17.23 2	57	99.2	51.3
17.42 1	25.2	92.44	30 14	18.14 1	4.8	1.04	43 31	16.77 5	21.3	4.68	32 42	17.95? 1	50.6	11.00	35 54	16.69 3	62	0.4	29.8
18.10 1	27.3	92.90	44 59	16.43 5	5.5	1.20	33 02	13.64w11	21.6	4.71	43 25	18.24 1	53.3	11.56	48 12	13.27 13	70	2.2	51.2
16.45 1	28.0	93.04	31 23	11.38w14	6.4	1.41	34 15	16.44 5	22.2	4.82	49 42					16.65 4	73	2.9	51.2
16.17 1	28.4	93.12	30 47	16.43 5	6.6	1.44	42 00	16.98 5	23.0	5.01	39 18					16.81 4	76	3.4	51.9
17.45 2	28.9	93.25	42 23	17.32 3	6.9	1.49	49 47	18.44 1	25.7	5.58	42 11								
16.03 5	29.8	93.45	34 41	17.38 3	7.4	1.60	35 20	18.32 1	26.8	5.83	46 42								
13.70w12	33.0	94.12	38 36	18.29 1	7.4	1.61	36 39	18.29 1	27.0	5.88	33 17								
18.08 2	37.1	95.03	39 18	18.24 1	8.0	1.74	49 29	15.70 6	27.9	6.06	35 26								
15.06 11	37.4	95.09	47 17	18.04 2	9.2	2.00	48 05	18.03 2	30.1	6.54	44 39								
17.23 2	38.4	95.30	33 30	18.32 1	9.5	2.06	42 40	13.77w12	30.7	6.68	33 04								
17.89 2	39.1	95.46	31 57	14.28 11	10.1	2.19	39 20	18.14 1	31.8	6.92	30 11								
12.19w12	41.5	95.99	40 37	15.16 10	10.1	2.19	32 53	18.32 1	35.4	7.68	46 09								
17.36 2	42.0	96.10	48 21	16.53 5	11.3	2.46	30 32	16.01 5	35.5	7.73	31 03								
18.15 1	43.3	96.38	44 28	**10.13w13**	**11.5**	**2.50**	**40 42**	18.29 1	36.8	8.00	34 17								
17.15 5	43.4	96.40	38 42	16.88 4	12.7	2.76	47 54	18.40 1	37.5	8.14	39 39								
17.71 2	43.6	96.43	31 19	17.12 5	13.4	2.92	43 07	17.98 2	37.7	8.21	35 41								
15.46 8	45.8	96.93	39 39	16.77 5	13.6	2.96	42 05	15.32 8	38.3	8.32	38 39								
18.16 2	46.3	97.03	37 40	17.72 3	13.6	2.96	34 21	17.80 1	38.4	8.33	45 59								
17.66 3	50.6	97.96	32 20	15.50 7	14.3	3.11	47 20	15.97 5	39.3	8.55	39 36								
11.99w13	52.4	98.34	40 12	17.08 5	14.5	3.16	43 21	18.20 2	40.2	8.74	37 10								
18.24 1	52.4	98.35	39 01	18.29 1	15.9	3.47	34 26	18.36 1	40.7	8.84	40 28								
13.70 12	53.8	98.64	44 18	17.29 3	17.8	3.87	33 02	17.58 3	40.9	8.91	34 09								
15.67 5	54.1	98.73	42 38	18.36 1	17.8	3.88	42 52	14.45 9	41.0	8.92	35 04								
17.79 3	56.1	99.16	39 56	17.94 2	18.8	4.08	48 23	16.88 5	42.0	9.13	38 17								
18.06 2	56.8	99.30	46 18	16.69 5	19.0	4.12	38 24	18.29 1	44.3	9.63	33 51								
16.56 5	57.2	99.40	45 22	17.96 2	20.3	4.43	32 04	17.92 2	44.6	9.68	47 13								
17.00 5	60.6	0.12	32 39	17.80 2	20.4	4.44	31 25	18.36 1	44.6	9.70	39 00								
16.01 5	63.0	0.64	43 27	15.56 7	20.5	4.46	49 28	16.35 5	46.5	10.11	38 02								
16.13 5	63.8	0.83	36 32	18.24 1	20.7	4.50	40 32	17.86 2	46.6	10.12	33 09								

25 prec. + $76^{s}.9$, − 8′ 21″

Area 57. Center for 1900: $13^\mathrm{h}\ 4^\mathrm{m}$ + 30° 0′ (20′ × 20′)

1—30				31—60				61—90				91—100				1s—4s			
Mag.	α 3^m	x	$y+60'$ y	Mag.	α 3^m	x	$y+60'$ y	Mag.	α 3^m	x	$y+60'$ y	Mag.	α 4^m	x	$y+60'$ y	Mag.	α 3^m	x	$y+60'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
15.70 1	6.7	88.44	48 06	15.80 9	38.3	95.29	45 50	16.21 8	54.0	98.70	48 31	18.15 2	27.5	5.94	3 02	17.35 2	2	87.4	55.8
18.98 2	7.2	88.55	51 01	19.50 1	38.3	95.29	57 50	16.91 3	54.6	98.83	55 11	18.04 1	28.4	6.16	3 52	17.41 2	3	87.6	51.0
19.26 2	7.6	88.67	58 46	19.16 2	40.3	95.72	49 28	16.24 8	54.7	98.85	49 09	17.11 3	29.1	6.31	3 05	15.10 8	34	94.4	44.5
18.24 2	10.2	89.20	51 40	19.60 1	40.3	95.72	54 03	19.60 1	54.8	98.88	54 51	14.48* 1	30.8	6.68	54 04	17.33 2	42	96.2	44.0
15.02 10	12.7	89.76	59 37	17.50 3	40.6	95.81	53 39	18.82 2	56.2	99.18	1 32	18.78 2	30.8	6.69	50 27				
15.94 9	13.3	89.88	52 57	15.81 8	41.0	95.88	52 38	17.59 3	56.5	99.24	45 18	16.36 8	31.2	6.76	58 55				
14.84 10	16.2	90.52	57 37	19.42 2	41.4	95.97	51 43	19.12 2	57.1	99.38	3 00	18.94 1	31.9	6.91	4 07				
13.84w 8	16.6	90.58	54 20	14.38w 11	41.5	95.98	50 35	19.18 2	57.8	99.52	3 50	16.06 1	32.7	7.09	47 01				
14.77 10	16.7	90.60	48 13	19.30 1	41.5	95.99	48 56	17.92 3	58.7	99.73	52 06	17.70 1	34.4	7.46	48 22				
19.16 2	17.1	90.70	46 57	14.99 10	41.9	96.09	0 16	18.93 2	61.5	0.33	47 39	17.43 3	35.9	7.78	54 04				
13.35w 12	18.1	90.92	51 42	19.64 2	42.1	96.13	56 22	18.28 3	62.5	0.54	55 59								
19.06 2	19.2	91.17	0 57	19.40 2	42.6	96.22	46 48	14.95 10	62.5	0.54	58 11								
18.74 2	20.5	91.43	49 23	19.42 2	43.5	96.42	59 02	17.73 3	63.5	0.77	57 28								
16.96 4	21.0	91.56	59 53	18.98 2	44.5	96.64	55 34	16.59 6	64.9	1.07	51 31								
16.12 9	22.9	91.94	54 35	19.60 1	44.9	96.73	52 38	17.64 3	65.0	1.07	3 29								
14.25 12	23.6	92.13	57 26	19.50 2	45.0	96.74	2 09	17.76 3	65.1	1.11	4 39								
17.08 4	24.7	92.34	51 57	19.40 1	45.0	96.75	0 43	13.95 11	65.7	1.25	46 42								
19.48 2	26.2	92.68	57 15	19.46 2	46.4	97.06	47 39	16.78 5	66.5	1.44	54 15								
19.18 2	26.6	92.76	50 41	19.60 1	48.3	97.47	52 53	16.74n 1	69.4	2.05	4 41								
19.40 1	27.5	92.96	52 45	14.16w 11	48.7	97.56	4 34	19.41 2	71.2	2.43	46 13								
17.72 3	28.1	93.10	4 59	19.21 2	49.2	97.67	45 21	19.06 2	72.4	2.69	49 21								
18.86 2	30.4	93.58	51 20	13.36w 13	50.1	97.84	51 47	15.18 9	72.5	2.72	48 28								
17.58 3	31.6	93.85	3 52	17.92 3	50.3	97.90	57 51	16.04 8	73.4	2.91	2 29								
19.28 2	31.9	93.93	56 26	14.32 12	50.8	98.01	51 28	17.82 3	74.3	3.09	58 25								
15.44 9	32.4	94.03	59 43	18.49 3	51.6	98.18	53 28	19.32 2	75.1	3.26	58 19								
16.90 4	34.7	94.52	45 32	19.72 2	51.6	98.19	49 30	18.93 2	78.0	3.91	46 48								
13.72w 11	35.2	94.62	4 18	9.01w 7	51.6	98.19	55 09	17.34 4	81.3	4.60	57 27								
19.12 2	35.8	94.75	45 45	14.59 12	52.6	98.41	58 07	17.70 3	82.2	4.80	3 30								
12.57w 12	36.6	94.95	1 11	14.53 12	52.8	98.45	46 48	19.34 2	86.3	5.71	47 54								
18.00 3	37.1	95.03	48 32	17.12 3	52.9	98.46	50 00	19.40 2	87.4	5.94	52 21								

25 prec. + $71^\mathrm{s}.5$, − 8′ 2″

13^h, 14^h

Area 58. Center for 1900: $14^\mathrm{h}\ 0^\mathrm{m}$ + 29° 40′ (20′ × 20′)

+ 29°

1—20				21—40				41—60				61—80				81—100			
Mag.	α 59^m	x	$y+40'$	Mag.	α 59^m	x	$y+40'$	Mag.	α 59^m	x	$y+40'$	Mag.	α 0^m	x	$y+40'$	Mag.	α 0^m	x	$y+4$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
18.32 2	14.4	90.08	38 04	17.91 3	29.9	93.46	42 40	18.35 3	46.8	97.13	32 09	15.40 12	5.2	1.12	34 26	15.22 12	17.5	3.80	32 0
15.61 8	14.9	90.19	38 35	17.15 3	30.3	93.54	36 40	16.83 3	47.0	97.17	26 11	17.31 3	5.5	1.20	35 06	18.04 3	17.7	3.85	34 5
15.19 12	15.3	90.29	39 04	17.52 3	32.2	93.96	29 40	17.99 3	47.2	97.22	30 11	14.78 12	6.3	1.36	44 18	18.20 3	19.0	4.13	38 4
17.53 3	16.2	90.49	32 51	14.75 12	33.2	94.17	40 47	17.25 3	48.9	97.58	44 58	18.55 3	6.4	1.39	32 41	15.63 4	19.9	4.32	42 2
17.81d 1	16.7	90.58	39 15	17.46 3	34.2	94.39	34 27	18.33 3	49.6	97.74	34 37	17.52 3	7.2	1.57	42 29	17.41 3	20.7	4.51	39 5
17.80 3	19.0	91.08	38 41	16.83 1	34.3	94.41	25 39	17.51 3	50.1	97.86	27 28	18.36x 3	7.9	1.73	40 45	12.57 15	21.0	4.57	38 3
14.69 12	19.3	91.15	39 53	17.62 3	35.4	94.64	33 04	18.01 3	50.6	97.96	27 11	17.14 3	9.4	2.05	32 09	17.91 3	22.1	4.81	44 3
18.05 1	20.4	91.41	41 31	17.58 3	35.8	94.74	32 08	17.35 3	50.6	97.96	44 10	14.57 12	10.6	2.31	28 18	18.13 1	22.4	4.88	26 2
17.62 3	20.8	91.48	40 25	18.37 1	36.5	94.88	26 15	18.68 3	52.8	98.44	35 40	16.83 3	11.5	2.51	37 04	16.58 3	24.8	5.39	41 2
17.64 1	20.9	91.51	25 28	14.37 13	37.8	95.18	31 19	18.62 1	54.4	98.79	34 31	16.83 1	11.8	2.54	25 28	10.54w 11	24.8	5.39	31 0
17.91 3	21.8	91.69	31 12	17.61w 2	37	95.2	44 48	17.16 3	57.9	99.55	38 21	18.13 3	12.2	2.64	29 52	17.79 3	24.8	5.41	32 2
18.37 1	24.1	92.17	27 40	18.53 3	38.4	95.31	35 37	18.62 1	58.2	99.60	29 58	17.22 3	12.8	2.78	29 25	17.84 3	24.8	5.41	39 2
11.59w 14	24.9	92.38	34 12	16.71 3	38.7	95.37	28 55	16.49 3	58.2	99.61	40 00	18.25 3	13.3	2.88	41 50	14.41 12	26.6	5.79	37 1
14.26 13	25.5	92.51	43 31	17.69 3	39.5	95.55	30 10	14.60 12	58.4	99.66	43 00	14.25 13	13.9	3.02	36 03	16.12 3	27.5	5.98	31 5
17.16 3	26.0	92.60	32 13	18.70 1	41.2	95.92	34 53	9.72w 11	58.6	99.69	37 22	18.62 1	14.3	3.10	43 21	18.13 3	29.4	6.39	41 3
17.76 3	26.2	92.64	34 23	18.84 2	44.3	96.59	37 03	16.73 3	58.6	99.70	44 14	16.50 1	15.4	3.35	25 31	18.46 1	31.0	6.73	44 1
14.64 2	26.5	92.72	27 40	18.37 3	45.2	96.78	32 45	19.00 1	58.6	99.71	38 39	17.12 3	16.6	3.61	35 26	17.80 3	32.0	6.96	31 1
17.51 3	28.1	93.07	40 26	18.46 1	45.3	96.81	26 28	14.89 12	60.1	0.03	39 37	18.24 3	16.9	3.66	43 12	18.71 2	32.5	7.06	37 1
13.45 15	29.1	93.29	33 54	18.47 3	46.2	97.01	34 01	18.62 1	61.6	0.36	44 01	17.26 3	17.0	3.70	35 54	18.37 1	32.7	7.11	26 1
17.15 1	29.2	93.31	26 28	17.46 3	46.7	97.10	35 38	13.90 13	62.7	0.58	26 28	18.55 1	17.4	3.77	44 04	18.55 1	33.8	7.34	31 3

25 prec. + $67^\mathrm{s}.3$, − 7′ 14

13^{h}, 14^{h} Area 58 + 29°

Mag.	α 0^{m}	x	$y+40'$	Mag.	α 0^{m}	x	$y+40'$	Mag.	α 59^{m}	x	$y+40'$	Mag.	α 0^{m}	x	$y+40'$
101—110				111—112				1s—10s				11s—15s			
	s	′	′ ″		s	′	′ ″		s	′	′		s	′	′
14.19 13	34.1	7.41	35 27	12.02 17	43.5	9.46	37 24	16.36 2	8	88.6	34.6	17.50 2	23	5.1	45.3
18.29 1	34.5	7.50	25 55	18.55? 1	44.0	9.56	35 43	16.44 2	9	89.0	33.6	10.37 15	24	5.3	45.1
17.64 1	35.0	7.61	26 37					17.15 2	31	93.6	47.3	13.68 13	47	10.3	33.4
17.02 3	35.5	7.72	35 30					17.80 2	40	95.6	46.0	17.76 2	49	10.7	36.7
17.82 3	37.6	8.17	39 52					15.91 5	41	95.9	46.6	16.40 2	50	10.8	40.2
18.37 1	37.8	8.22	31 07					16.61 2	48	97.5	45.8				
17.73 3	38.4	8.34	38 34					15.97 5	49	97.6	46.8				
16.83 1	38.9	8.46	25 15					14.86 10	50	97.8	45.5				
17.04 3	41.9	9.10	36 01					16.06 5	53	98.4	45.4				
16.26 3	42.1	9.14	31 58					17.69 2	80	4.3	47.7				

25 prec. + $67^{s}.3$, − 7′ 14″

15^{h} Area 59. Center for 1900: 15^{h} 2^{m} + 29° 50′ (20′ × 20′) + 29°, + 30°

Mag.	α 1^{m}	x	$y+50'$	Mag.	α 1^{m}	x	$y+50'$	Mag.	α 1^{m}	x	$y+50'$	Mag.	α 2^{m}	x	$y+50'$
1—40				41—80				81—120				121—160			
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
18.13 1	9.4	89.02	53 38	18.17 2	32.4	94.03	54 59	17.88 3	52.1	98.29	53 34	16.04 8	11.3	2.46	47 29
17.56 1	9.6	89.10	59 35	15.96 7	32.5	94.05	53 09	17.94 1	52.4	98.37	59 04	17.88 3	11.8	2.54	55 54
18.24 1	10.6	89.28	51 16	18.38 2	32.6	94.07	51 50	18.61 1	53.0	98.49	46 47	17.88 3	11.9	2.59	42 21
18.24 1	11.9	89.55	41 00	16.63 3	32.6	94.07	54 36	13.22 13	53.1	98.51	56 18	17.40 3	12.8	2.79	42 12
17.50 1	13.2	89.87	58 03	16.95 3	32.7	94.08	46 58	15.86 8	54.5	98.80	55 15	18.51 2	14.0	3.05	49 37
17.68 3	13.6	89.95	45 54	18.24 1	33.5	94.27	56 58	18.48 1	54.5	98.81	43 50	18.18 1	14.4	3.12	58 39
17.56 1	14.2	90.04	40 00	17.74 3	34.0	94.34	44 56	9.43w 5	55.0	98.93	49 07	17.41 3	14.4	3.13	41 24
14.20 10	14.6	90.16	53 42	17.74 3	35.0	94.58	55 03	16.02 7	55.1	98.95	40 45	17.61 3	14.6	3.18	42 42
18.30 1	15.2	90.28	51 30	18.13 1	35.0	94.59	59 29	18.01 3	55.8	99.08	42 39	18.36 1	14.7	3.21	40 49
14.48 1	15.6	90.36	40 23	17.97 3	35.1	94.60	45 53	18.13 1	56.1	99.17	59 54	14.41 10	14.9	3.23	49 04
18.18 1	15.4	90.36	55 09	14.78 11	35.4	94.64	44 59	18.30 1	56.5	99.24	55 10	17.63 3	15.5	3.36	45 55
18.06 1	15.8	90.41	40 06	16.34 6	35.6	94.71	48 38	18.30 1	56.9	99.32	56 18	17.87 3	17.7	3.84	44 30
17.86 3	16.1	90.47	42 20	15.82 7	36.9	94.98	52 44	16.63 3	57.6	99.48	41 36	16.10 8	18.3	3.98	51 18
13.76 10	17.0	90.67	48 37	17.74 3	37.0	95.00	41 40	16.35 7	57.9	99.54	51 28	11.70w 13	19.5	4.23	47 34
17.25 3	17.3	90.72	44 00	17.61 3	37.2	95.07	57 42	18.36x 1	58.0	99.56	48 33	16.78 3	20.1	4.36	53 16
17.21 3	17.6	90.81	49 39	16.18 7	38.1	95.24	50 37	16.96 3	60.1	0.02	59 38	16.24 7	20.3	4.40	54 04
17.71 3	17.8	90.82	44 45	17.48 3	39.5	95.57	56 05	18.42 1	60.8	0.18	48 00	16.59 3	20.4	4.42	56 00
14.39 11	17.9	90.84	42 57	17.51 3	39.7	95.61	58 25	18.13 1	61.0	0.22	47 45	17.97 3	20.5	4.44	50 12
17.86 3	18.1	90.89	43 49	16.98 3	40.2	95.69	41 40	18.30 1	61.3	0.29	55 11	17.98 3	20.8	4.52	47 57
17.69 3	19.3	91.16	43 05	18.03 3	40.8	95.83	44 55	17.74 2	62.0	0.45	58 35	17.83 3	21.3	4.63	44 41
17.71 2	19.8	91.26	43 53	17.94 2	42.5	96.20	47 59	16.33 7	63.1	0.68	45 51	17.64 3	21.4	4.65	43 20
18.36 1	22.8	91.93	46 24	18.15 2	43.1	96.33	50 43	16.01 8	64.0	0.87	42 14	14.35 9	22.0	4.79	40 56
18.30 1	22.8	91.93	51 45	13.47w 10	43.7	96.47	46 53	17.16 3	64.4	0.95	57 55	15.90 8	22.1	4.80	46 03
17.58 3	23.5	92.11	58 17	16.18 8	44.0	96.52	53 28	15.73 8	64.4	0.96	59 12	16.04 8	23.1	5.03	49 07
17.87 2	24.5	92.31	51 49	18.36 1	44.5	96.63	52 53	16.14 8	64.5	0.97	56 03	14.80 10	23.5	5.08	58 49
17.42 3	24.5	92.31	52 36	17.30 3	45.0	96.74	47 00	17.85 2	64.6	1.00	46 30	17.76d 1	23.9	5.18	49 32
17.42 3	24.7	92.34	48 44	14.76 10	45.5	96.87	56 46	17.60 3	66.3	1.36	53 40	17.70x 3	24.6	5.36	41 14
14.45 11	24.9	92.38	53 14	18.34 2	45.6	96.88	54 11	17.41 3	66.9	1.51	53 41	14.01 11	25.2	5.47	52 14
18.18 1	25.2	92.47	55 58	18.48 1	46.6	97.10	49 26	18.36 1	67.7	1.67	53 24	17.84 3	25.2	5.47	55 01
17.02 3	27.1	92.86	51 40	18.54 1	47.0	97.18	46 40	17.78 3	68.1	1.75	59 01	17.98 3	25.6	5.55	48 38
18.28 2	28.1	93.06	44 51	17.70 3	47.7	97.33	51 03	17.86 3	68.6	1.86	45 13	18.30 1	25.8	5.61	54 00
18.30 1	29.3	93.33	41 35	16.49 5	48.4	97.48	54 36	17.84 3	68.8	1.90	58 58	17.94 1	26.9	5.83	58 00
17.94 1	29.5	93.41	55 47	16.26 6	49.1	97.64	46 30	17.59 3	69.1	1.97	52 54	15.73 8	27.7	6.03	40 40
17.85 3	30.5	93.61	53 59	17.54 3	49.7	97.77	59 41	18.48 1	69.2	1.99	47 38	17.49 3	28.0	6.09	44 06
18.36 1	30.8	93.64	41 53	18.36 1	50.3	97.89	40 51	17.70 3	69.4	2.04	54 13	18.11 3	28.3	6.15	54 20
17.84 3	31.0	93.70	42 41	17.90 2	51.0	98.06	58 20	17.83 3	69.7	2.11	42 48	17.64 3	29.1	6.30	57 53
14.70 11	31.2	93.75	47 05	17.76 3	51.3	98.10	42 47	16.29 7	69.9	2.15	41 58	17.88 3	29.2	6.35	51 41
18.36 2	31.7	93.86	45 34	16.55 7	51.2	98.10	49 30	18.12 2	69.9	2.16	50 22	14.69 8	30.4	6.59	49 03
16.28 7	31.7	93.87	49 40	18.11 3	51.2	98.11	54 46	17.79 3	70.2	2.23	47 47	17.27 3	30.7	6.67	54 47
18.42 2	32.1	93.95	50 44	17.57 3	52.0	98.26	51 35	14.45 9	70.3	2.24	44 57	11.80w 13	30.8	6.71	40 46

Mag.	α 2^{m}	x	$y+50'$
161—179			
	s	′	′ ″
17.84 3	31.3	6.81	50 21
17.72 3	32.4	7.02	45 00
17.76 1	32.7	7.08	55 35
18.06 1	33.2	7.18	59 55
17.59 3	33.5	7.27	54 38
17.97 2	33.9	7.36	50 46
14.76 1	34.0	7.40	40 59
17.34 3	34.3	7.44	47 30
17.63x 3	34.9	7.57	45 34
18.24 1	35.4	7.68	54 39
17.50 1	35.9	7.77	58 27
16.14 1	36.4	7.88	58 41
18.13 1	36.9	7.98	55 35
17.38 1	37.7	8.17	57 15
18.18 1	37.8	8.23	42 19
17.59 3	38.7	8.41	48 57
17.59 3	38.9	8.45	53 34
18.24 1	39.4	8.56	52 05
18.13 1	40.5	8.77	57 42

Mag.	α 1^{m}	x	$y+50'$ / $y-10'$
1s—16s			
13.89 10	2	87.4	49.0
17.11 2	3	87.6	50.2
17.73 2	38	95.2	39.6
17.41 2	41	95.9	38.0
17.09 2	43	96.2	38.7
13.66 10	44	96.5	0.2
16.47 2	52	98.2	38.2
16.05 6	53	98.4	38.3
16.91 2	61	0.3	0.2
15.84 6	63	0.7	39.8
16.52 2	71	2.4	39.4
15.53 7	73	2.9	39.3
17.41 2	75	3.3	39.8
16.01 6	79	4.2	39.3
17.09 2	103	9.4	49.9
16.07 6	106	10.0	45.8

25 prec. + $63^{s}.0$, − 5′ 51″

Area 60. Center for 1900: 15^{h} 56^{m} + 29° 50′ (20′ × 20′)

1—30				31—60				61—90				91—120				121—143			
Mag.	α 55^{m}	x	$y+50'$ / $y-10'$	Mag.	α 55^{m}	x	$y+50'$ / $y-10'$	Mag.	α 56^{m}	x	$y+50'$ / $y-10'$	Mag.	α 56^{m}	x	$y+50'$ / $y-10'$	Mag.	α 56^{m}	x	$y+50'$ / $y-10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
16.26 8	23.3	92.05	50 30	16.26 4	42.2	96.14	53 37	15.88 9	4.5	0.98	53 35	17.15 5	24.8	5.38	53 30	15.74 9	42.3	9.17	54 01
17.52 1	23.3	92.06	0 42	17.91 1	42.9	96.30	45 07	17.41 3	4.6	1.00	52 58	17.42 3	24.8	5.38	59 07	15.77 10	42.8	9.27	58 00
17.52 1	24.6	92.32	48 04	17.97 3	43.2	96.36	52 00	13.47 14	4.7	1.02	2 06	18.23 1	25.7	5.57	57 36	14.73 10	44.0	9.52	0 10
16.05 8	25.5	92.53	49 25	16.92 3	46.0	96.98	59 31	17.26 3	6.1	1.32	55 48	18.09 3	28.3	6.13	59 36	16.21 8	44.3	9.58	3 31
17.13 1	27.3	92.92	4 50	18.18 2	46.6	97.09	48 09	18.39 1	6.8	1.48	56 20	17.09 3	29.8	6.44	59 09	17.80 3	44.4	9.61	56 49
16.97 3	28.9	93.27	1 17	17.40 3	46.7	97.11	1 53	17.87 3	6.9	1.50	49 23	17.43 3	29.9	6.47	58 02	16.50 6	45.2	9.79	2 55
15.80 9	29.1	93.29	54 44	17.23 3	48.0	97.37	53 42	16.91 3	7.7	1.67	56 49	17.98 3	30.0	6.50	47 10	16.29 7	45.6	9.89	47 36
17.77 3	30.3	93.57	56 10	14.72 11	48.4	97.49	48 30	15.83 7	7.8	1.69	0 52	17.57 3	30.2	6.56	47 46	18.21 3	46.0	9.98	49 53
16.75 3	31.8	93.91	0 46	17.04 3	48.8	97.59	3 03	17.84d 1	8.4	1.83	54 43	15.44 9	30.4	6.59	59 51	15.46 9	46.4	10.07	51 37
16.38 8	34.7	94.52	55 45	15.77 9	48.9	97.60	4 42	14.52 12	9.0	1.94	46 45	17.41 2	30.6	6.63	2 00	16.47 8	47.2	10.23	56 52
17.82 3	34.9	94.56	51 26	16.33 7	49.0	97.62	45 25	18.31 1	9.0	1.94	50 53	18.07 1	30.6	6.64	46 21	16.51 8	47.3	10.25	55 05
17.75 3	35.2	94.63	56 27	17.68 3	49.7	97.77	4 33	18.31 1	9.0	1.96	51 50	15.27 10	31.1	6.73	57 28	17.16 3	48.5	10.52	52 03
13.75 13	35.8	94.76	57 17	18.23 1	49.9	97.80	52 09	14.98 11	9.1	1.98	3 47	17.53 3	31.7	6.89	53 47	17.31 3	49.0	10.63	53 15
11.82 14	35.8	94.77	58 28	16.48 8	50.2	97.83	51 27	17.37 3	9.7	2.11	1 09	12.18 15	31.8	6.90	49 08	16.66 5	50.6	10.95	56 36
15.05 9	36.0	94.80	47 53	16.40 6	53.3	98.55	55 28	17.05 5	10.0	2.16	58 39	14.64 11	32.0	6.93	3 29	17.46 3	51.3	11.12	49 17
14.46 11	36.1	94.83	2 37	16.43 4	53.6	98.62	59 41	17.53 3	10.0	2.17	58 23	17.63 3	32.2	6.99	56 43	17.64 3	54.0	11.68	58 47
15.97 7	36.3	94.87	3 28	16.13d 1	54.6	98.83	45 02	14.72 11	10.3	2.23	0 17	15.96 10	34.3	7.44	53 30	17.36 1	54.0	11.68	2 00
16.37 7	36.3	94.87	47 08	17.28 3	54.9	98.90	46 59	9.49w 6	10.3	2.24	54 57	18.07 1	34.6	7.50	50 59	15.09 1	53.9	11.71	47 25
15.83 1	36.6	94.95	4 57	17.36 3	55.1	98.95	50 42	17.98 3	12.9	2.80	53 25	15.87 9	35.8	7.76	51 07	14.39 11	54.4	11.77	0 49
12.21 15	36.7	94.97	2 55	15.60 10	55.1	98.95	58 48	13.04 16	14.1	3.06	55 29	17.81 3	36.8	7.97	58 16	17.84 1	54.4	11.80	47 54
16.57 3	36.9	94.99	52 49	17.93 3	57.1	99.38	0 53	17.09 5	14.6	3.16	57 26	16.89 3	37.3	8.09	54 51	16.72 5	54.9	11.89	55 10
16.65 3	37.3	95.07	52 41	15.16 10	58.5	99.68	45 58	17.29d 1	14.9	3.23	47 31	18.07 1	37.7	8.16	2 26	11.71 15	55.4	11.98	52 25
16.77 3	38.0	95.25	2 52	18.11 3	59.3	99.85	46 40	16.68 7	15.3	3.32	0 43	17.51 3	38.8	8.43	54 41	15.88 9	55.4	11.99	58 05
16.10 7	38.2	95.28	45 56	17.98 3	59.5	99.90	1 02	14.69 11	16.0	3.47	46 52	16.41 6	39.6	8.58	1 44				
16.75 3	38.7	95.38	51 13	16.88 5	61.1	0.25	52 27	16.31 9	16.6	3.59	56 36	17.98 3	39.8	8.65	54 53				
17.58 3	39.1	95.47	46 56	18.26 3	62.4	0.52	51 13	14.95 12	19.5	4.23	54 43	10.27w 8	40.4	8.77	50 33				
17.16 3	39.0	95.47	55 52	16.81 5	63.0	0.66	53 02	16.79 7	19.8	4.30	54 50	15.78 9	40.5	8.78	46 08				
17.33 3	39.5	95.57	3 21	18.00 3	63.6	0.79	49 05	17.56 3	19.9	4.32	51 55	16.28d 1	40.9	8.84	57 19				
12.43 15	42.0	96.10	45 47	16.30 8	64.1	0.91	49 34	16.88 7	20.8	4.53	54 46	13.93 13	41.8	9.07	52 01				
17.29 1	42.0	96.10	4 59	17.30 3	64.3	0.95	53 43	16.20 7	21.3	4.63	50 08	15.17 1	42.2	9.15	45 18				

25 prec. + $60^{s}.3$, − 4′ 18″

15^{h}

Area 60. Supplementary Stars

+ 29°, + 30°

1s—11s			
Mag.	α 55^{m}	x	$y+50'$ / $y-10'$
	s	′	′
15.91 7	21	91.5	50.7
15.83 7	21	91.6	54.3
16.71 2	54	98.7	44.1
16.18 7	57	99.2	44.8
18.37 2	62	0.5	44.4
16.28 7	77	3.7	6.2
17.63 2	78	3.8	43.7
15.30 7	81	4.6	44.0
14.83 9	119	12.7	52.5
14.89 9	119	12.7	59.7
17.69 2	119	12.8	52.3

25 prec. + $60^{s}.3$, − 4′ 18″

Area 61. Center for 1900: 16^{h} 59^{m} + 30° 0′ (15′ × 15′)

1—40

Mag.		α 58^{m}	x	y+60′ / y
		s	′	′ ″
16.33	8	14.4	90.12	2 55
16.16	7	14.6	90.15	56 00
14.69	12	15.4	90.36	3 23
15.62	9	15.6	90.39	0 49
14.73	9	15.7	90.40	54 47
14.69	10	17.3	90.76	1 23
14.80	10	18.1	90.93	57 09
17.49	3	18.2	90.96	4 04
16.58	6	20.1	91.36	0 45
17.30	3	20.4	91.41	51 59
13.74	15	20.9	91.54	0 00
16.12	8	20.9	91.54	3 26
17.53	3	21.5	91.66	1 49
18.12	3	21.7	91.71	56 02
17.81	3	22.1	91.79	53 24
18.29	3	22.6	91.90	58 16
16.67	3	22.9	91.97	3 13
15.28	10	23.0	91.99	3 33
11.98	17	23.8	92.17	55 09
15.73	9	24.1	92.23	57 13
13.93	12	24.2	92.24	53 52
18.29	3	24.4	92.30	58 04
17.25	3	24.4	92.30	57 27
15.21	10	24.6	92.35	55 12
17.91	3	24.9	92.41	3 28
18.06	3	25.2	92.47	58 08
17.52	2	26.1	92.66	55 06
18.14	3	26.3	92.70	2 35
16.43	6	26.5	92.76	4 01
12.43	15	26.6	92.76	54 22
17.26	3	26.6	92.77	59 30
13.77	15	27.2	92.90	0 48
17.97	3	27.5	92.96	2 51
16.11	9	27.6	92.97	52 46
18.29	3	27.8	93.03	2 20
15.80	9	27.9	93.06	59 14
18.03	3	28.9	93.26	50 46
17.94	3	29.2	93.32	53 59
15.60	9	29.9	93.47	50 45
16.35	8	29.9	93.47	51 25

41—80

Mag.		α 58^{m}	x	y+60′ / y
		s	′	′ ″
16.23	8	30.5	93.61	51 48
18.14	3	31.1	93.72	51 37
17.43	3	31.7	93.87	56 27
13.00	16	32.1	93.94	54 30
18.16	3	32.4	94.02	4 01
18.26	3	34.0	94.37	2 51
17.80	3	34.6	94.51	58 08
13.33	15	35.5	94.70	56 31
18.62	3	35.7	94.75	55 21
18.50	3	36.1	94.83	57 23
16.40	8	37.0	95.02	0 07
16.30	6	37.0	95.02	57 04
18.14	3	38.7	95.39	59 07
18.37	3	39.7	95.61	0 41
17.12	3	40.0	95.67	57 22
14.05	12	40.0	95.68	4 03
17.03	3	40.6	95.80	1 20
17.39	3	40.8	95.85	53 18
16.07	9	41.3	95.95	51 06
18.15	3	42.4	96.19	50 13
17.90	3	43.3	96.39	2 21
16.49	7	43.5	96.42	56 44
15.83	9	43.7	96.46	54 06
16.72	3	44.2	96.59	57 57
16.74	3	44.4	96.63	4 19
14.15	12	44.5	96.65	54 17
17.82	2	46.2	97.02	4 21
16.69	6	46.4	97.06	59 24
17.79	3	47.1	97.20	2 54
18.05	3	47.3	97.25	1 01
17.92	3	47.5	97.31	0 59
17.75	3	47.5	97.31	3 30
17.45	3	47.8	97.36	1 18
17.02	3	48.0	97.41	52 47
13.03	15	49.1	97.64	57 31
17.18	3	49.5	97.72	54 54
17.38	2	50.0	97.85	58 44
17.62	3	50.0	97.85	57 16
18.47	3	50.2	97.89	55 40
9.56w	10	50.4	97.93	57 43

81—120

Mag.		α 58^{m}	x	y+60′ / y
		s	′	′ ″
18.64	2	51.0	98.05	3 05
18.78	3	51.1	98.07	59 14
15.97	9	51.2	98.09	5 00
17.75	3	51.6	98.19	57 19
17.20	3	51.9	98.26	56 23
17.59	3	52.4	98.36	50 28
18.68	1	53.3	98.56	59 31
14.43	9	54.1	98.72	0 24
18.38	2	54.6	98.83	0 58
17.14	3	54.8	98.88	52 04
18.43	3	54.8	98.88	53 44
18.31	3	55.6	99.05	4 01
18.81	1	56.1	99.16	58 44
16.05	9	56.6	99.27	2 53
16.03	9	57.2	99.40	0 53
12.52	17	57.5	99.46	54 52
15.56	8	57.8	99.53	1 19
17.52	3	58.2	99.60	3 30
15.92	6	58.4	99.65	58 26
14.17	13	58.9	99.76	56 05
17.73	3	58.9	99.77	53 33
18.42	1	59.6	99.93	54 50
16.56	6	60.0	0.01	57 40
18.13	3	60.4	0.09	58 59
16.56	4	60.9	0.21	51 50
13.96	12	61.1	0.25	0 27
17.41	3	61.2	0.27	55 29
17.59d	1	61.3	0.28	52 57
17.88w	2	61	0.3	0 30
17.72	3	61.4	0.31	55 27
17.76	3	61.5	0.33	50 03
18.14	3	62.0	0.44	3 28
17.57	3	62.4	0.53	57 54
17.45	3	63.1	0.68	51 54
18.01	3	63.7	0.81	52 36
15.78	9	64.1	0.88	2 57
14.94	10	65.1	1.11	58 54
14.15	13	65.3	1.14	4 40
16.30	4	66.4	1.39	51 54
16.51	7	66.6	1.43	53 17

121—152

Mag.		α 59^{m}	x	y+60′ / y
		s	′	′ ″
15.74	9	6.8	1.47	0 43
18.13	3	6.9	1.50	53 11
16.88	3	7.1	1.55	55 12
15.76	9	7.2	1.56	1 48
18.50	3	7.2	1.57	56 48
16.82	3	7.7	1.67	58 08
17.59	3	8.1	1.76	55 43
18.10x	2	8.8	1.90	0 54
17.64	3	9.4	2.05	4 56
15.27	10	9.5	2.07	59 48
17.62	3	9.8	2.13	53 49
17.41	3	10.4	2.25	4 49
18.17	3	10.4	2.26	0 45
16.66	8	11.5	2.49	57 45
17.97	2	11.9	2.58	2 30
15.99	7	12.0	2.61	50 15
16.54	6	13.1	2.85	59 57
17.16	3	14.0	3.03	3 13
16.68	3	14.3	3.09	55 55
18.16	3	14.9	3.23	52 51
17.81	3	15.9	3.46	52 10
15.55	9	16.2	3.53	50 03
14.92	10	16.6	3.60	59 54
14.90	10	16.6	3.60	4 46
17.50	3	17.2	3.72	4 11
17.28	3	17.7	3.82	55 55
17.92	3	18.9	4.09	3 42
18.18	3	19.2	4.16	3 37
14.54	12	19.7	4.26	4 03
14.10	11	21.9	4.75	55 47
17.33	3	22.4	4.86	3 37
15.77	9	22.7	4.92	51 50

25 prec. + $58^{s}.1$, − 2′ 12″

16^{h} Area 61. Supplementary Stars + 29°, + 30°

1s—10s

Mag.		α 57^{m}	x	y+60′ / y
		s	′	′
17.34	2	58	86.6	59.7
15.56	8	60	86.9	57.4
17.48	2	60	86.9	59.2
10.14	11	60	87.0	58.6
17.58	2	60	87.1	0.2
15.80	7	61	87.2	59.4
17.44	2	62	87.4	53.0
14.88	6	64	87.9	58.6
15.59	8	65	88.0	53.4
17.97	2	65	88.0	55.4

11s—20s

Mag.		α 58^{m}	x	y+60′ / y
		s	′	′
14.89	8	5	88.0	2.2
16.69	2	5	88.0	2.8
15.55	7	6	88.3	0.1
18.08	2	6	88.4	1.9
17.86	2	7	88.5	54.4
16.70	2	7	88.6	0.7
15.50	6	8	88.7	52.6
16.90	2	8	88.7	56.6
16.33	3	8	88.8	4.2
17.68	2	10	89.2	4.4

21s—30s

Mag.		α 58^{m}	x	y+60′ / y
		s	′	′
16.90	2	11	89.4	3.7
16.92	2	11	89.4	4.6
13.56	12	13	89.9	53.9
15.24	9	13	89.9	0.5
15.56	8	18	91.0	49.8
17.46	2	19	91.1	6.6
17.09	2	20	91.4	48.4
16.23	7	22	91.7	5.8
15.69	8	23	91.9	6.4
17.50	2	25	92.4	49.8

31s—40s

Mag.		α 58^{m}	x	y+60′ / y
		s	′	′
17.21	2	26	92.7	6.9
16.29	7	27	92.8	5.9
17.95	2	28	93.1	48.3
10.68	13	29	93.2	8.2
16.59	2	30	93.6	47.6
16.81	2	30	93.6	50.0
16.60	2	31	93.8	6.3
14.69	10	35	94.6	8.0
17.91	2	36	94.8	5.4
17.35	2	37	95.0	49.4

41s—50s

Mag.		α 58^{m}	x	y+60′ / y
		s	′	′
16.48	3	37	95.0	6.6
16.83	2	38	95.2	47.8
17.61	2	39	95.6	47.4
16.60	2	40	95.7	7.1
16.92	2	40	95.7	7.2
15.94	5	41	95.8	48.8
14.03	11	41	95.8	49.9
17.49	2	41	95.8	5.9
14.66	10	41	96.0	48.9
16.23	5	42	96.1	5.4

16^{h} Area 61. Supplementary Stars + 29°, + 30°

51s—70s				71s—90s				91s—110s				111s—130s			
Mag.	α 58^{m}	x	y+60′ y	Mag.	α 59^{m}	x	y+60′ y	Mag.	α 59^{m}	x	y+60′ y	Mag.	α 59^{m}	x	y+60′ y
	s	′	′		s	′	′		s	′	′		s	′	′
16.29 3	42	96.2	8.3	18.30 2	1	0.2	5.1	18.11 2	19	4.2	6.7	18.06 2	32	6.9	4.1
11.29 13	43	96.3	7.7	13.86 11	1	0.3	5.4	17.22 2	21	4.6	5.3	17.64 2	32	7.0	59.5
15.19 9	43	96.4	49.6	14.54 9	2	0.5	8.7	16.18 5	23	5.0	3.9	15.97 7	33	7.1	53.6
17.85 2	44	96.6	47.5	17.86 2	3	0.6	49.8	15.40 8	24	5.2	53.8	18.22 2	33	7.2	58.6
16.44 4	44	96.6	48.5	17.81 2	4	0.9	6.6	16.42 3	24	5.3	53.8	18.16 2	33	7.2	59.4
15.62 8	45	96.8	7.2	17.20 2	5	1.1	47.6	16.70 2	25	5.4	1.4	17.66 2	34	7.3	56.6
15.20 9	46	96.9	47.1	18.06 2	6	1.2	8.3	18.37 2	26	5.6	58.6	17.16 2	35	7.5	56.5
17.56 2	46	96.9	49.9	17.14 2	6	1.4	49.0	16.28 7	26	5.6	3.0	17.32 2	35	7.5	57.6
17.46 2	47	97.1	6.4	16.97 2	7	1.6	5.5	16.64 3	27	5.9	55.8	16.43 3	36	7.8	55.7
17.52 2	48	97.5	5.6	18.15 2	8	1.7	48.8	16.27 7	27	5.9	1.5	17.90 2	36	7.8	56.4
17.06 2	49	97.6	50.0	17.78 2	9	2.0	47.4	16.39 7	28	6.1	52.9	17.71 2	36	7.9	56.1
14.50 11	49	97.7	5.5	16.08 6	11	2.3	47.4	16.35 5	28	6.1	53.8	18.16 2	37	8.0	57.1
15.73 7	51	98.0	46.4	17.36 2	11	2.4	47.7	17.93 2	28	6.1	2.3	11.89 14	37	8.1	57.6
16.28 7	51	98.1	48.4	18.16 2	11	2.4	6.9	18.11 2	29	6.2	51.3	16.38 2	39	8.5	0.8
16.90 2	53	98.5	46.7	18.02 2	13	2.8	6.0	17.92 2	29	6.2	1.9	15.44 8	40	8.7	58.6
17.84 2	58	99.6	8.0	18.00 2	14	3.0	7.4	16.40 5	29	6.3	57.6	17.70 2	42	9.0	56.4
18.16 2	59	99.7	8.3	17.72 2	15	3.2	7.6	15.11 6	30	6.4	54.0	16.42 2	42	9.0	56.9
17.97 2	59	99.8	46.8	14.51 11	15	3.3	49.0	12.94 12	30	6.4	54.7	18.06 2	42	9.2	55.9
16.54 3	60	0.1	5.6	12.84 13	18	4.0	48.7	16.33 7	29	6.4	4.6	12.96 13	44	9.5	58.1
16.48 5	60	0.1	6.7	16.17 3	19	4.1	6.6	18.30 2	30	6.5	56.8	15.50 8	44	9.5	59.0

25 prec. + $58^{\mathrm{s}}.1$, − 2′ 12″

17^{h} Area 62. Center for 1900: 17^{h} 55^{m} + 30° 0′ (15′ × 15′) + 29°, + 30°

1—30				31—60				61—90				91—120				121—150			
Mag.	α 54^{m}	x	y+60′ y	Mag.	α 54^{m}	x	y+60′ y	Mag.	α 54^{m}	x	y+60′ y	Mag.	α 54^{m}	x	y+60′ y	Mag.	α 55^{m}	x	y+60′ y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.53 3	39.1	95.49	55 25	16.30 6	44.6	96.66	55 14	17.98 3	49.7	97.78	56 24	16.37 8	55.7	99.08	3 04	17.96 2	1.8	0.41	3 22
18.10 3	39.2	95.51	58 26	17.64 3	45.0	96.74	6 23	18.14 3	49.8	97.81	56 32	17.67 3	55.9	99.13	8 21	12.83 16	2.0	0.44	7 47
17.92 2	39.3	95.52	1 54	18.07 3	45.1	96.77	58 16	17.87 3	50.1	97.86	59 00	13.14 15	56.0	99.15	4 05	18.58 2	2.0	0.45	57 39
17.66 2	39.6	95.59	9 29	14.82 11	45.1	96.78	9 37	17.87 2	50.4	97.92	2 12	16.38 5	56.1	99.16	56 22	17.09 3	2.2	0.48	8 44
16.42 8	40.0	95.67	2 28	17.56 3	45.4	96.84	3 23	18.32 1	50.5	97.94	9 02	17.34 3	56.2	99.18	3 15	16.47 7	2.9	0.63	7 15
17.61 3	40.4	95.76	3 45	11.96 13	45.8	96.93	7 00	17.80 3	50.6	97.96	59 04	17.67 3	56.2	99.18	0 16	18.04 3	3.1	0.68	58 09
18.26 2	40.4	95.76	7 04	17.82d 1	45.8	96.93	4 19	16.96 3	50.7	97.99	7 04	18.12 3	56.6	99.27	3 52	16.66 5	3.5	0.77	9 20
17.61 3	40.5	95.78	0 48	17.41 3	45.9	96.94	0 14	18.76 2	51.0	98.06	0 37	13.62 14	56.8	99.30	6 38	18.57 1	3.6	0.79	0 28
17.59 3	40.5	95.78	4 32	17.75 3	45.9	96.96	59 36	18.40 1	51.1	98.07	8 31	17.60 2	56.8	99.31	4 58	17.55 3	3.9	0.84	7 58
16.96 3	40.6	95.80	2 49	17.96 3	46.0	96.98	3 14	18.64 2	51.3	98.12	8 03	18.49 1	57.0	99.35	59 23	17.75 3	4.2	0.90	56 17
16.37 7	40.7	95.82	56 41	17.17 3	46.1	97.00	4 02	13.44 15	52.0	98.27	58 03	16.92 3	57.5	99.46	55 42	14.56 11	4.4	0.95	55 57
17.43 3	41.2	95.93	55 16	17.25 3	46.1	97.00	7 19	16.17 7	52.1	98.30	4 37	16.26 7	58.4	99.64	1 23	16.60 7	4.6	0.99	8 46
17.64 3	41.3	95.94	1 03	16.91 3	46.6	97.11	55 26	16.89 3	52.1	98.31	2 33	16.82 3	58.4	99.64	0 00	18.33 3	4.6	1.01	5 01
17.72 2	41.3	95.96	6 21	15.76 9	46.7	97.12	3 29	18.54 2	52.1	98.31	58 38	17.01 4	58.4	99.65	7 58	16.41 7	4.7	1.03	58 25
18.48 2	41.5	96.01	3 44	17.50 3	46.8	97.14	55 00	16.95 3	52.4	98.37	4 10	17.52 3	58.6	99.69	9 15	18.33 2	5.0	1.08	0 19
14.03 13	41.7	96.05	5 44	17.69 3	47.2	97.22	8 49	18.40 1	52.5	98.39	8 20	12.46 14	58.7	99.73	55 23	17.84 3	5.2	1.13	3 46
15.92 9	41.8	96.07	4 59	17.75 3	47.2	97.23	59 31	17.79 2	52.5	98.39	7 00	18.15 3	59.1	99.81	7 32	17.97 3	5.3	1.15	1 47
17.78 3	41.9	96.09	57 35	16.09 7	47.3	97.25	58 50	17.78 3	52.7	98.42	6 19	14.18 12	59.4	99.89	8 02	18.06 2	5.3	1.16	3 11
17.31 3	42.0	96.10	56 04	17.72 2	47.3	97.25	57 47	16.99 3	52.8	98.44	59 15	17.92 3	59.6	99.93	57 10	18.00 3	5.3	1.16	56 56
18.09 3	42.0	96.11	58 40	17.84 3	47.3	97.26	8 40	18.06 3	53.2	98.52	5 33	14.59 12	59.7	99.95	4 59	14.55 10	5.4	1.17	59 58
18.20 2	42.1	96.13	6 49	17.50 3	47.4	97.28	0 44	17.72 3	53.3	98.56	4 20	17.78 3	59.9	99.99	5 04	16.83 5	5.5	1.20	3 56
18.12 3	42.4	96.21	2 09	15.54 10	47.9	97.38	0 18	17.82 3	53.3	98.56	3 19	16.42 7	60.0	0.00	7 08	17.84 3	5.6	1.22	6 54
17.88 3	42.5	96.22	59 07	18.71 2	48.0	97.41	4 11	17.26 3	53.5	98.61	3 40	17.53 3	60.4	0.08	2 24	17.30 3	5.7	1.24	58 56
16.32 7	42.6	96.24	0 28	17.02 3	48.2	97.46	58 04	17.50 3	54.1	98.73	4 32	16.76 4	60.7	0.15	1 46	17.54 3	5.9	1.29	7 40
13.33 12	42.7	96.26	58 29	18.32 1	48.4	97.49	9 08	18.35 3	54.1	98.73	6 37	17.53 3	60.7	0.16	59 05	17.81 3	6.1	1.33	4 36
15.89 9	43.0	96.33	57 48	17.37 3	49.1	97.65	57 45	18.76 2	54.6	98.82	59 41	17.90 3	60.8	0.17	5 00	16.44 7	6.2	1.35	2 42
16.38 4	43.2	96.36	57 35	17.14 3	49.2	97.67	56 57	14.44 10	54.6	98.83	3 46	16.70 7	60.9	0.19	4 48	18.65 1	6.3	1.36	2 57
16.67 5	43.7	96.48	59 09	18.40 1	49.3	97.69	7 42	16.66 7	54.9	98.91	4 46	18.20 3	61.2	0.26	3 06	17.47 3	6.2	1.36	2 23
15.07 10	43.9	96.53	7 23	17.04 3	49.4	97.70	5 43	17.77 3	55.6	99.05	56 15	17.14 3	61.2	0.26	7 17	16.58 7	6.9	1.49	59 04
18.26 3	44.1	96.57	6 13	16.11 9	49.4	97.70	58 04	17.96 3	55.7	99.08	59 03	16.60 7	61.5	0.33	7 06	17.96 3	6.9	1.49	55 03

25 prec. + $57^{\mathrm{s}}.5$, − 0′ 11″

151—210

Mag.		α 55^m	x	y+60′ y
		s	′	′ ″
18.22	3	7.5	1.62	5 49
18.00	3	7.6	1.64	59 32
16.63	6	7.8	1.68	1 38
18.03	3	7.9	1.71	4 29
18.57	1	7.9	1.71	5 29
18.02	3	8.0	1.72	8 02
17.33	3	8.1	1.75	55 17
16.02	9	8.3	1.79	9 34
17.20	3	8.7	1.89	9 32
16.07	8	9.1	1.98	5 51
16.49	5	9.2	2.00	56 33
16.16	5	9.2	2.00	2 22
17.87	3	9.2	2.01	5 26
15.67	7	9.4	2.08	3 29
18.21	3	9.8	2.12	56 50
13.41	13	10.1	2.19	57 32
17.54	3	10.4	2.25	7 20
16.51	7	10.6	2.31	2 03
17.54	3	11.1	2.41	2 12
15.34	9	11.1	2.41	4 54
17.39	3	11.1	2.41	8 48
18.41	2	11.4	2.47	0 28
16.85	3	11.5	2.49	56 44
16.52	6	11.9	2.58	8 54
8.53w	7	12.1	2.62	3 22
17.62	3	12.1	2.63	7 54
18.23	3	12.3	2.67	5 56
17.40	3	12.5	2.70	6 40
16.35	7	13.0	2.83	56 21
17.42	3	13.1	2.84	0 09
14.73	12	13.4	2.90	9 25
8.36w	7	13.6	2.95	3 20
14.69	11	14.0	3.02	4 36
16.46	8	15.1	3.27	5 56
17.00	3	15.3	3.33	55 45
14.90	11	15.5	3.37	2 37
17.75	3	15.6	3.39	58 31
17.52	3	15.8	3.43	8 13
18.32	3	15.9	3.44	7 32
16.62	5	16.3	3.53	3 31
16.49	7	16.5	3.58	58 07
18.35	3	16.7	3.63	0 57
18.00	3	16.8	3.64	58 40
18.73	1	17.0	3.68	3 32
18.21	3	17.1	3.70	55 31
16.15	9	17.4	3.76	9 54
17.13	3	17.4	3.77	58 27
17.59	3	17.9	3.87	0 40
18.65	1	18.1	3.92	4 17
16.62	5	18.2	3.95	3 52
17.55	3	18.3	3.96	5 25
18.73	1	18.4	3.98	3 19
15.55	10	18.6	4.03	8 34
16.06	10	18.7	4.05	56 46
17.82	3	18.7	4.05	56 34
14.67	11	18.7	4.06	3 01
16.92	5	19.3	4.18	8 30
15.24	10	19.5	4.22	2 13
17.75	3	19.8	4.29	2 06
18.57	1	19.9	4.30	6 21

211—270

Mag.		α 55^m	x	y+60′ y
		s	′	′ ″
16.52	7	20.2	4.37	2 43
16.65	5	20.5	4.44	3 48
18.00	3	20.6	4.46	0 36
15.46	10	20.6	4.46	9 31
18.28	2	21.0	4.55	4 36
15.97	9	21.2	4.58	1 30
16.28	8	21.5	4.65	9 29
16.62	7	21.8	4.72	9 08
17.93	3	22.0	4.76	5 01
17.60	3	22.0	4.77	5 24
16.58	5	22.1	4.79	3 51
18.57	1	22.3	4.82	0 58
16.06	8	22.4	4.84	7 03
13.29	14	22.4	4.86	0 17
17.84	3	22.5	4.87	3 53
17.68	2	22.5	4.87	59 00
17.75	3	23.0	4.98	4 03
17.68	3	23.5	5.08	6 45
17.72	3	23.6	5.10	55 34
17.86	3	23.9	5.17	57 27
16.05	9	24.0	5.21	58 20
16.76	6	24.1	5.22	0 51
18.57	1	24.3	5.27	6 03
18.49	1	24.5	5.30	0 18
18.06	3	24.6	5.32	0 59
16.39	7	24.7	5.34	0 09
16.46	7	24.8	5.37	58 11
16.28	8	24.8	5.38	8 24
18.58	2	24.8	5.38	9 04
17.96	2	25.1	5.45	2 03
17.95	3	25.3	5.48	1 24
17.94	3	25.4	5.50	8 41
14.84	10	25.4	5.50	8 07
17.20	3	25.7	5.57	6 36
17.61	3	25.7	5.57	4 09
17.12	3	26.4	5.73	8 34
15.30	10	26.5	5.74	5 48
16.54	7	26.8	5.80	7 13
17.18	3	26.8	5.81	56 55
18.49	1	27.0	5.85	59 55
15.52	10	27.5	5.94	0 05
17.78	3	27.5	5.95	7 10
17.53	3	27.7	6.01	3 03
14.58	10	27.8	6.02	2 13
16.76	3	28.1	6.09	1 47
18.76	2	28.1	6.09	59 31
15.82:	9	28.2	6.10	4 40
17.87	3	28.3	6.12	56 34
17.42	3	28.4	6.15	57 52
17.45	3	28.5	6.18	2 37
18.02	3	28.5	6.18	6 49
18.15	1	28.5	6.18	7 52
16.24	8	28.6	6.20	55 59
17.63	3	28.7	6.23	57 36
14.91	10	28.8	6.25	56 21
18.26	3	28.9	6.27	3 15
16.94	3	29.0	6.29	0 13
18.15	3	29.1	6.30	7 19
17.57	3	29.1	6.31	55 05
17.10	3	29.5	6.38	3 11

271—330

Mag.		α 55^m	x	y+60′ y
		s	′	′ ″
17.47	3	29.5	6.39	59 39
17.64	3	29.7	6.43	8 33
13.29	13	29.9	6.48	2 19
17.82	1	30.3	6.56	59 00
18.38	3	30.4	6.58	4 22
17.43	3	30.8	6.66	2 28
16.26	8	31.2	6.74	57 51
13.41	15	31.2	6.74	5 29
14.39	12	31.2	6.76	1 12
16.63	5	31.4	6.80	1 28
18.14	2	31.4	6.80	7 22
17.87	3	31.7	6.86	7 59
17.23	3	31.9	6.91	8 28
17.78	3	32.0	6.93	55 29
18.62	2	32.3	7.01	0 19
17.59	3	33.1	7.16	1 16
12.68	14	33.1	7.17	0 26
17.13	1	33.3	7.21	1 11
17.24	3	33.8	7.33	7 49
18.12	3	33.9	7.34	2 53
15.31	10	34.2	7.41	9 38
12.40	17	34.6	7.48	5 56
15.06	9	34.6	7.49	6 55
17.91w	2	35	7.5	5 30
14.65	12	34.9	7.56	9 57
17.83	3	35.2	7.62	0 08
10.12w	9	35.2	7.65	55 29
17.51	3	36.2	7.84	56 20
17.34	3	36.3	7.86	1 58
17.26	3	36.6	7.92	3 46
17.49	3	36.6	7.93	59 26
18.40?	1	37.0	8.00	3 09
18.09	3	37.1	8.03	6 22
17.23	3	37.2	8.04	3 42
17.82d	1	37.2	8.04	1 42
16.43	8	37.2	8.06	7 39
17.78	3	37.5	8.12	56 13
17.89	3	37.6	8.15	1 42
17.65	3	37.8	8.18	59 17
17.49	3	37.8	8.19	1 54
16.68	3	38.0	8.23	0 23
17.72	3	38.1	8.24	7 06
18.03	3	38.3	8.30	7 53
17.71	3	38.3	8.31	58 29
17.81	3	38.4	8.33	55 24
17.90	3	38.6	8.37	59 38
18.07	3	38.7	8.38	8 06
15.84	9	39.0	8.44	59 58
18.47	2	39.5	8.56	5 36
14.52	11	39.7	8.59	57 37
18.10	3	39.9	8.65	0 47
18.11	3	39.9	8.65	9 59
16.43	8	40.0	8.66	5 14
11.39w	13	40.1	8.69	1 02
17.16	3	40.2	8.70	2 47
17.63	3	40.8	8.83	5 38
16.32	8	40.9	8.85	3 27
12.20	15	40.9	8.85	58 06
17.51	3	41.0	8.87	57 21
17.70	3	41.0	8.88	8 00

331—364

Mag.		α 55^m	x	y+60′ y
		s	′	′ ″
17.46	3	41.1	8.91	7 29
16.86	3	41.1	8.91	56 07
15.91	10	41.1	8.91	2 50
12.84	16	41.3	8.94	0 02
13.44	14	41.8	9.04	5 07
18.10	3	42.7	9.24	59 07
17.88	3	42.9	9.28	4 12
18.12	3	42.9	9.29	7 03
18.03	3	43.1	9.32	4 45
18.02	3	43.4	9.39	8 38
16.47	6	43.5	9.43	8 01
16.49	5	43.6	9.45	55 48
18.13	3	43.9	9.51	5 50
14.35	13	43.9	9.51	9 21
17.63	3	44.1	9.55	58 53
17.91	3	44.3	9.59	6 34
17.33	3	45.4	9.82	7 54
17.96	3	45.4	9.82	57 30
16.08	8	45.8	9.92	56 33
17.75	3	46.0	9.96	9 27
16.37	8	46.1	9.98	7 43
17.63	3	46.1	9.98	55 43
17.09	3	46.2	10.01	7 28
15.35	10	46.4	10.05	8 27
16.34	7	46.6	10.08	3 30
17.48	3	46.9	10.16	8 00
17.33	3	47.1	10.19	55 46
16.46	7	47.1	10.21	4 16
15.86	9	47.3	10.25	56 36
15.47	10	47.8	10.34	6 47
15.84	9	47.8	10.35	9 37
15.06	10	47.9	10.37	8 30
17.29	3	47.9	10.37	57 20
17.51	3	48.0	10.41	4 05

25 prec. + $57^s.5$, − 0′ 10″

1s—60s					61s—120s					121s—180s					181s—240s					241s—261s				
Mag.		α 54^{m}	x	$y+60'$ y	Mag.		α 54^{m}	x	$y+60'$ y	Mag.		α 55^{m}	x	$y+60'$ y	Mag.		α 55^{m}	x	$y+60'$ y	Mag.		α 56^{m}	x	$y+60'$ y
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
17.89	2	21	91.6	3.6	17.75	2	38	95.2	1.0	16.15	5	10	2.2	54.7	16.14	7	32	6.9	12.4	14.60	10	0	13.0	59.6
17.89	2	22	91.7	4.3	16.61	2	38	95.2	9.6	16.31	6	10	2.2	13.2	14.44	10	32	7.0	54.2	17.79	2	0	13.0	3.0
16.80	2	22	91.8	5.1	17.29	2	39	95.4	0.0	17.49	2	12	2.6	13.2	17.29	2	34	7.3	54.3	17.65	2	0	13.0	6.4
17.41	2	23	91.9	3.4	17.19	2	39	95.4	0.4	17.84	2	12	2.7	52.4	14.47	10	34	7.4	52.6	16.75	2	0	13.0	8.6
17.50	2	23	91.9	5.4	16.32	6	39	95.4	4.3	17.15	2	13	2.8	10.5	17.95	2	36	7.9	13.0	16.29	3	1	13.1	7.6
17.89	2	24	92.1	0.6	15.58	8	39	95.4	8.4	17.88	2	13	2.8	10.7	17.43	2	37	8.1	54.2	16.13	7	1	13.2	59.0
15.06	8	26	92.6	59.7	17.81	2	41	95.9	54.3	17.51	2	13	2.8	12.0	12.84	13	37	8.1	54.4	17.95	2	1	13.2	59.4
17.34	2	26	92.6	1.1	17.79	2	43	96.3	54.5	16.79	2	14	3.0	13.7	14.14	11	38	8.2	11.2	17.81	2	1	13.2	0.1
17.55	2	26	92.6	7.3	16.03	5	43	96.3	10.6	14.65	9	14	3.1	52.0	17.53	2	39	8.5	12.8	17.41	2	1	13.2	2.1
17.41	2	26	92.6	7.8	17.60	2	46	96.9	54.3	13.30	12	14	3.1	53.2	17.51	2	42	9.0	12.2	16.07	7	1	13.2	6.1
14.19	10	26	92.7	7.0	15.48	6	47	97.2	11.7	16.23	7	15	3.2	12.6	16.19	6	42	9.2	11.4	17.79	2	1	13.3	4.3
16.22	5	27	92.8	59.7	15.85	6	48	97.3	54.0	17.92	2	15	3.2	13.7	16.23	6	43	9.3	10.4	16.28	4	2	13.4	1.1
16.83	2	27	92.9	4.1	17.95	2	49	97.6	54.4	17.07	2	15	3.3	54.5	15.96	7	45	9.8	54.1	17.27	2	2	13.5	2.4
18.00	2	28	93.0	3.2	15.94	7	49	97.6	10.4	16.14	7	16	3.4	53.7	17.95	2	45	9.8	11.6	17.71	2	3	13.6	2.6
17.59	2	28	93.0	4.6	16.82	2	49	97.7	12.8	14.68	10	15	3.4	10.2	16.17	7	47	10.1	11.0	16.21	5	3	13.6	3.8
16.57	2	28	93.0	5.6	17.95	2	50	97.8	53.6	15.75	8	16	3.4	11.7	15.29	8	47	10.2	11.2	17.83	2	3	13.7	0.7
18.00	2	29	93.2	59.8	15.50	8	50	97.9	53.3	16.23	6	16	3.5	53.4	17.55	2	47	10.2	11.9	17.86	2	3	13.7	5.4
17.71	2	30	93.4	58.3	17.63	2	50	97.9	10.8	13.90	8	16	3.5	13.5	17.81	2	48	10.4	10.7	13.55	12	5	14.0	6.6
17.92	2	30	93.5	57.8	17.71	2	51	98.1	53.3	15.33	7	17	3.7	12.9	15.19	8	48	10.4	11.2	17.90	2	5	14.1	4.1
17.88	2	30	93.5	59.7	16.17	5	51	98.1	13.2	18.07	2	18	3.8	12.3	14.70	9	49	10.6	1.4	15.60	8	5	14.1	6.0
16.15	6	30	93.5	1.2	16.82	2	51	98.2	54.3	16.80	2	18	3.9	53.8	17.24	2	49	10.6	6.7	17.83	2	6	14.2	3.4
18.07	2	30	93.5	4.5	17.43	2	54	98.8	54.4	12.57	14	18	3.9	55.0	17.35	2	49	10.6	9.9					
17.05	2	30	93.6	57.2	17.07	2	55	98.9	12.2	10.46	9	18	3.9	14.4	17.61	2	49	10.7	1.2					
17.62	2	30	93.6	1.0	17.16	2	55	99.0	52.6	17.91	2	19	4.0	11.2	18.16	2	49	10.7	2.8					
15.29	8	30	93.6	5.2	17.49	2	56	99.2	10.9	18.00	2	19	4.1	13.5	16.18	7	50	10.8	56.4					
16.06	7	30	93.6	7.1	16.36	6	56	99.2	12.1	17.16	2	19	4.2	10.7	16.39	4	50	10.8	58.7					
17.35	2	31	93.7	0.3	17.57	2	56	99.2	12.9	16.02	7	20	4.2	11.2	18.07	2	50	10.8	59.2					
17.81	2	31	93.7	3.3	11.56	14	56	99.2	14.3	16.14	6	20	4.2	13.7	14.69	10	50	10.8	11.6					
15.84	8	31	93.7	5.0	17.85	2	58	99.5	54.7	17.29	2	20	4.2	14.2	17.83	2	50	10.9	59.8					
17.47	2	31	93.7	9.1	17.07	2	58	99.6	52.8	17.20	2	20	4.3	53.8	17.76	2	50	10.9	4.4					
14.15	10	31	93.8	6.5	17.91	2	58	99.6	54.6	14.58	10	20	4.3	12.5	14.39	9	51	11.0	4.7					
16.24	7	32	93.9	5.2	17.99	2	58	99.6	54.9	13.04	14	20	4.4	13.4	17.92	2	51	11.1	0.4					
16.78	2	32	94.0	57.7	17.72	2	59	99.7	13.5	16.78	2	21	4.6	53.1	17.99	2	52	11.2	56.8					
17.34	2	32	94.0	0.0	17.93	2	59	99.8	10.8	16.81	2	22	4.7	54.6	17.48	2	52	11.2	57.4					
16.34	7	33	94.0	0.7	16.24	6	59	99.8	11.7	17.89	2	22	4.7	13.5	17.23	2	52	11.2	57.7					
17.63	2	32	94.0	0.8	17.23	2	60	0.0	12.4	17.89	2	23	4.9	52.3	17.07	2	52	11.2	4.1					
16.87	2	33	94.2	55.9	17.88	2	60	0.1	53.9	15.31	7	23	4.9	53.8	17.50	2	52	11.2	4.4					
17.85	2	33	94.2	0.2	16.43	5	61	0.2	10.1	14.68	10	23	4.9	11.9	15.50	8	52	11.2	6.8					
16.45	4	33	94.2	3.6	17.49	2	62	0.4	53.1	17.99	2	23	5.0	11.8	17.99	2	53	11.4	56.3					
17.88	2	33	94.2	6.0	18.07	2	62	0.4	54.8	16.02	7	23	5.0	14.6	17.08	2	53	11.4	56.6					
17.56	2	34	94.3	56.8	16.16	7	62	0.4	14.4	17.22	2	24	5.3	52.4	17.88	2	53	11.4	2.6					
14.44	10	34	94.3	3.2	17.90	2	63	0.7	13.6	17.33	2	24	5.3	53.4	16.75	3	53	11.4	3.2					
15.85	7	34	94.4	58.7	17.67	2	64	0.8	53.0	17.65	2	25	5.4	11.4	16.15	5	53	11.4	10.6					
17.06	2	35	94.6	7.1	17.53	2	64	0.9	11.0	17.13	2	26	5.6	52.4	17.68	2	54	11.6	57.3					
17.95	2	36	94.8	56.2	12.24	13	65	1.1	54.4	15.49	8	26	5.6	12.8	17.47	2	54	11.6	10.3					
17.90	2	36	94.8	3.6	17.77	2	66	1.2	12.2	17.11	2	26	5.6	13.0	17.03	2	54	11.7	4.2					
17.39	2	36	94.9	55.7	16.24	7	66	1.3	53.9	17.79	2	27	5.8	11.8	17.81	2	54	11.7	7.9					
18.14	2	36	94.9	1.5	17.27	2	66	1.4	54.9	16.21	7	27	5.8	13.2	17.66	2	55	11.8	58.6					
17.75	2	36	94.9	6.4	17.11	2	66	1.4	11.2	17.16	2	27	5.9	53.0	16.26	7	55	11.8	6.0					
16.78	2	36	94.9	7.0	18.07	2	67	1.4	12.0	16.79	2	27	5.9	12.1	17.49	2	55	11.8	7.4					
16.18	7	36	94.9	8.3	13.47	12	67	1.5	52.1	17.99	2	28	6.0	52.1	15.47	8	55	11.9	5.3					
16.76	2	37	95.0	5.4	16.41	4	67	1.6	53.2	17.81	2	28	6.1	53.4	17.55	2	55	12.0	0.0					
16.15:	2	37	95.1	56.8	16.92	2	67	1.6	11.5	12.94	13	29	6.2	13.4	16.87	2	56	12.0	8.4					
16.08	7	37	95.1	57.9	16.29	6	67	1.6	12.9	17.89	2	30	6.4	13.4	17.58	2	56	12.2	1.4					
16.38	6	37	95.1	59.6	17.77	2	68	1.8	52.3	16.01	7	30	6.6	53.5	16.03	7	57	12.4	6.1					
18.16	2	37	95.1	2.4	17.53	2	69	1.8	53.4	16.08	7	31	6.6	12.7	17.91	2	58	12.5	59.8					
16.71	2	37	95.1	3.3	15.80	8	68	1.8	11.8	15.18	7	31	6.6	14.0	17.89	2	59	12.7	58.0					
17.99	2	38	95.2	55.3	16.97	2	69	1.9	12.2	17.43	2	31	6.7	10.2	16.99	2	59	12.7	4.3					
18.07	2	38	95.2	57.9	17.33	2	70	2.1	51.9	17.03	2	31	6.8	53.6	17.23	2	59	12.8	4.4					
17.34	2	38	95.2	0.1	16.89	2	70	2.1	13.9	17.43	2	32	6.9	12.2	17.31	2	60	12.9	1.2					

25 prec. + $57^{\mathrm{s}}.5$, − 0′ 11″

1—60				
Mag.		α 59^{m}	x	$y+60'$ y
		s	′	′ ″
17.72	3	36.9	95.00	8 37
16.88	4	36.9	95.01	8 50
18.07	3	37.1	95.04	58 24
17.73	3	37.1	95.05	55 27
17.89	3	37.1	95.05	5 33
16.92	7	37.2	95.06	59 04
14.26	13	37.2	95.07	9 33
16.98	4	37.3	95.09	8 21
17.84	2	37.4	95.10	58 43
16.98	3	37.4	95.11	8 54
17.01	4	37.6	95.16	5 28
16.59	3	37.6	95.16	58 55
13.87	16	37.7	95.18	55 48
15.02	9	37.8	95.20	9 03
16.57	7	37.8	95.20	8 09
17.91	3	37.8	95.20	2 16
18.04	3	37.8	95.21	4 05
15.15	10	38.0	95.25	57 04
17.89	3	38.1	95.27	4 23
14.95	12	38.3	95.30	58 42
18.43	1	38.3	95.31	3 52
18.32	2	38.4	95.32	58 49
17.86	3	38.5	95.34	5 26
15.44	8	38.5	95.35	9 13
18.50	1	38.5	95.36	58 59
18.12	3	38.6	95.37	0 23
15.18	11	38.6	95.38	0 07
18.34	2	39.0	95.47	59 20
18.20	3	39.1	95.49	2 56
17.66	2	39.1	95.49	9 38
17.64	3	39.2	95.51	0 06
16.72	7	39.5	95.57	3 07
17.72	2	39.5	95.57	5 14
15.46	8	39.5	95.57	7 11
16.77	3	39.6	95.59	59 34
16.37	4	39.7	95.61	9 33
17.43	3	39.8	95.62	1 20
16.76	4	39.8	95.63	58 33
18.15	3	39.8	95.63	5 00
18.27	3	39.9	95.66	2 57
15.46	7	40.0	95.67	9 11
16.73	7	40.0	95.68	3 12
17.47	3	40.3	95.74	7 01
18.27	3	40.3	95.74	4 59
17.78	3	40.3	95.75	4 23
16.82	8	40.3	95.75	3 39
16.95	3	40.3	95.75	7 37
13.13	16	40.6	95.81	6 14
18.25	3	40.6	95.81	59 21
15.55	8	40.7	95.83	57 32
15.33	9	40.7	95.83	2 06
18.11	3	40.9	95.86	57 04
17.73	3	40.9	95.87	9 08
15.93	9	41.0	95.89	56 17
17.71	3	41.2	95.93	9 54
18.06	3	41.2	95.93	8 55
18.57	3	41.3	95.96	4 52
15.91	9	41.4	95.97	5 24
16.92	4	41.4	95.97	5 12
16.79	8	41.5	95.99	4 17

61—120				
Mag.		α 59^{m}	x	$y+60'$ y
		s	′	′ ″
16.84	7	41.5	96.00	55 49
17.41	3	41.5	96.00	59 50
14.61	12	41.6	96.02	56 32
18.14	3	41.6	96.02	57 05
15.15	8	41.6	96.03	58 42
13.96	12	41.6	96.03	59 13
17.26	3	41.6	96.03	7 50
16.15	8	41.6	96.03	7 56
14.85	12	41.7	96.04	59 38
18.16	3	41.7	96.05	55 39
15.55	8	41.8	96.06	58 53
17.63	3	41.8	96.06	57 33
17.14	3	41.8	96.07	55 51
18.35	3	41.8	96.07	57 23
17.89	3	41.8	96.07	8 06
16.61	8	42.0	96.10	59 05
18.18	3	42.0	96.10	55 25
15.90:	1	42.0	96.11	4 39
15.49	10	42.1	96.12	2 31
18.18	3	42.2	96.14	56 42
17.22	3	42.2	96.14	56 50
17.97	3	42.3	96.18	2 24
18.50	1	42.4	96.19	59 29
17.44	3	42.4	96.19	5 11
16.88	3	42.5	96.23	56 45
18.05	3	42.5	96.23	1 57
18.29	3	42.7	96.27	2 21
18.08	3	42.8	96.28	9 23
16.47	7	42.9	96.31	5 49
17.89	3	43.0	96.32	6 37
18.09	3	43.0	96.32	1 37
17.81	2	43.1	96.35	0 18
18.31	3	43.2	96.37	3 35
16.60	7	43.3	96.38	55 22
17.13	3	43.5	96.43	4 48
17.36	3	43.5	96.43	6 21
17.22	3	43.6	96.44	59 00
17.56	3	43.6	96.45	4 54
18.35*	1	43.7	96.47	8 22
16.23	8	43.7	96.47	59 33
18.47	3	43.9	96.53	7 47
17.60	1	43.9	96.53	8 25
15.94	8	44.0	96.54	55 47
15.42	10	44.0	96.54	5 03
16.55	7	44.0	96.55	7 13
15.64:	2	44.2	96.59	9 27
18.27	3	44.2	96.59	4 13
16.64	8	44.3	96.61	2 36
15.96	8	44.4	96.63	0 38
16.39	9	44.5	96.65	6 36
16.63	8	44.5	96.65	7 25
16.73	4	44.6	96.66	0 55
17.77	3	44.6	96.66	56 30
17.41	3	44.8	96.70	8 16
18.56	1	44.9	96.72	2 49
17.77	3	45.1	96.77	56 22
18.56	1	45.1	96.78	2 34
18.46	2	45.2	96.79	0 05
17.14	3	45.2	96.80	58 47
15.11	10	45.2	96.81	9 33

121—180				
Mag.		α 59^{m}	x	$y+60'$ y
		s	′	′ ″
14.50	13	45.3	96.82	6 43
18.02	2	45.4	96.85	7 51
15.17	10	45.7	96.90	9 23
16.96	2	45.8	96.93	4 32
18.36	2	45.9	96.96	2 16
14.32	11	46.0	96.97	4 07
17.81	2	46.0	96.97	57 18
18.13	3	46.0	96.98	6 22
17.06	3	46.1	96.99	0 16
16.85	7	46.1	97.00	1 36
18.69	3	46.1	97.01	1 14
18.14	3	46.1	97.01	56 18
15.23	10	46.1	97.01	8 52
16.90	2	46.2	97.02	7 46
18.25	3	46.3	97.04	0 41
18.43	1	46.3	97.04	56 10
15.96	10	46.5	97.08	5 25
17.53	3	46.5	97.08	6 29
17.58	3	46.5	97.08	6 46
15.28	12	46.5	97.09	58 31
18.37	3	46.7	97.12	59 39
16.33	9	46.8	97.14	57 30
14.46	14	46.8	97.15	7 28
16.94	4	46.9	97.16	2 50
16.73	4	46.9	97.17	4 37
18.27	2	47.0	97.18	58 01
16.85	8	47.0	97.18	57 55
18.76	3	47.2	97.22	57 05
18.43	1	47.3	97.25	55 28
16.77	7	47.3	97.25	7 13
16.86	4	47.3	97.25	6 38
17.85	3	47.3	97.25	5 24
17.09	3	47.3	97.25	3 37
17.80	3	47.3	97.26	3 31
18.47	3	47.4	97.27	59 27
16.19	8	47.4	97.27	55 03
17.58	3	47.4	97.28	59 31
18.06	3	47.6	97.32	56 14
18.46	2	47.6	97.32	2 10
17.29	3	47.6	97.32	5 27
16.54	8	47.6	97.33	3 10
18.31	3	47.6	97.33	59 58
18.07	2	47.7	97.35	5 36
13.90	13	47.8	97.36	6 08
18.62	3	47.8	97.36	0 52
18.87	3	47.8	97.36	57 12
17.91	3	47.9	97.38	5 14
18.25	3	48.0	97.40	55 59
17.47	3	48.0	97.41	58 29
15.95	8	48.1	97.42	7 47
18.56	1	48.1	97.43	57 21
16.83	4	48.1	97.43	0 01
17.56	3	48.2	97.46	1 30
16.97	4	48.3	97.48	4 52
17.63	3	48.3	97.48	4 15
18.43	1	48.4	97.51	9 01
15.96	9	48.4	97.51	8 08
18.31	3	48.8	97.58	1 31
17.04	4	48.9	97.60	2 17
18.51	2	48.9	97.60	55 53

181—240				
Mag.		α 59^{m}	x	$y+60'$ y
		s	′	′ ″
17.37	3	48.9	97.61	6 30
18.50	1	49.1	97.64	5 00
18.28	2	49.2	97.66	3 09
18.11	3	49.2	97.67	5 49
18.33	3	49.2	97.67	56 20
16.41	9	49.4	97.70	56 55
15.17	11	49.5	97.73	59 58
16.74	8	49.7	97.77	55 46
16.86	4	49.7	97.77	59 06
14.84	10	49.7	97.77	9 08
16.90	2	49.8	97.79	56 04
17.52	3	49.8	97.79	2 05
17.00	3	49.8	97.81	59 21
16.81	7	49.9	97.83	59 47
16.47	8	50.1	97.85	9 51
18.38	2	50.1	97.87	1 49
16.09	9	50.1	97.87	7 13
18.49	3	50.2	97.88	57 00
17.58	3	50.3	97.90	4 17
17.78	3	50.3	97.91	2 51
18.15	3	50.3	97.91	57 13
17.72	2	50.6	97.97	55 47
18.60	2	50.6	97.97	59 15
17.82	2	50.6	97.97	2 43
17.15	3	50.7	97.99	4 22
13.54	16	50.8	98.00	9 51
16.12	9	50.8	98.01	6 27
18.09	3	51.1	98.07	7 40
16.67	8	51.1	98.07	4 54
17.09	3	51.1	98.08	0 52
17.05	3	51.2	98.10	8 48
17.74	3	51.2	98.10	58 36
18.11	3	51.4	98.14	57 10
15.49	10	51.4	98.14	5 42
18.01	3	51.4	98.15	8 57
15.22	12	51.4	98.15	2 59
18.15	3	51.4	98.15	7 37
18.18	3	51.5	98.17	7 32
15.06	12	51.6	98.18	0 28
14.63	11	51.6	98.19	0 18
16.23	8	51.7	98.20	3 17
18.07	2	51.7	98.20	2 40
17.50	3	51.7	98.20	56 47
17.25	3	51.7	98.20	6 39
17.49	3	51.7	98.20	5 01
16.82	7	51.7	98.21	7 55
15.26	12	52.0	98.27	1 03
16.39	8	52.0	98.27	1 19
18.28	1	52.0	98.29	2 31
17.83	3	52.0	98.29	3 34
18.60	2	52.1	98.29	57 43
18.47	3	52.1	98.30	9 19
17.08	3	52.1	98.31	0 13
16.57	8	52.2	98.32	2 34
15.68	9	52.2	98.33	55 46
18.14	3	52.3	98.35	57 11
18.33	3	52.3	98.35	58 05
17.12	3	52.6	98.41	58 31
16.84	4	52.6	98.41	6 56
16.66	7	52.7	98.42	57 01

241—300				
Mag.		α 59^{m}	x	$y+60'$ y
		s	′	′ ″
18.75	3	52.7	98.43	5 18
18.63	1	52.7	98.43	1 20
15.33	9	53.0	98.48	0 42
18.36	3	53.0	98.48	58 16
16.65	8	53.1	98.51	57 37
17.14	3	53.4	98.58	9 11
15.44	8	53.4	98.58	6 36
17.95	3	53.6	98.62	2 13
16.86	6	53.6	98.63	0 10
18.17	3	53.7	98.64	2 33
18.12	3	53.7	98.64	8 14
17.50	3	53.8	98.66	55 46
17.58	3	53.9	98.69	58 13
15.55	11	53.9	98.69	2 07
18.08	3	54.1	98.72	5 11
18.26	3	54.1	98.72	57 12
16.73	6	54.2	98.74	7 34
18.49	2	54.2	98.75	7 27
18.66	2	54.4	98.78	56 33
16.60	7	54.4	98.79	59 17
18.15	2	54.4	98.79	6 31
15.07	11	54.7	98.85	0 29
17.33	3	54.8	98.87	3 20
17.51	3	54.9	98.89	55 32
13.21	15	54.9	98.91	55 25
17.26	3	54.9	98.91	59 25
16.21:	1	55.0	98.92	3 48
12.85	13	55.1	98.94	1 16
14.87	11	55.1	98.94	8 58
18.56	1	55.1	98.94	57 31
18.48	3	55.1	98.95	9 16
18.24	2	55.2	98.96	56 05
18.86	2	55.3	98.98	4 48
18.09	3	55.4	99.00	1 27
17.93	3	55.4	99.01	59 00
17.50	3	55.5	99.03	2 48
18.13	3	55.5	99.03	8 52
18.50	1	55.6	99.06	6 33
17.16	3	55.6	99.07	8 52
16.56	8	55.7	99.07	56 04
15.94	8	55.8	99.10	7 46
17.35	3	55.9	99.13	55 15
18.16	3	56.0	99.14	2 26
17.19	3	56.0	99.15	55 20
16.70	7	56.0	99.15	59 01
17.73	3	56.2	99.18	1 22
17.94	2	56.3	99.21	0 28
18.05	3	56.6	99.27	0 42
17.66	3	56.6	99.27	58 10
16.96	8	56.7	99.29	4 12
17.76	3	56.8	99.30	6 45
17.22	3	56.8	99.30	6 01
17.09	3	56.8	99.30	8 14
16.33	8	56.8	99.31	9 49
16.10	8	56.9	99.33	4 31
17.31	3	57.0	99.34	0 13
17.26	3	57.0	99.35	4 44
16.53	9	57.0	99.35	58 46
18.17	3	57.0	99.35	5 48
16.53	8	57.1	99.37	8 28

25 prec. + $58^{\mathrm{s}}.0$, + 2′ 9″

301—360				361—420				421—480				481—540				541—600			
Mag.	α 59^{m}	x	$y+60'$ / y	Mag.	α 0^{m}	x	$y+60'$ / y	Mag.	α 0^{m}	x	$y+60'$ / y	Mag.	α 0^{m}	x	$y+60'$ / y	Mag.	α 0^{m}	x	$y+60'$ / y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
18.30 2	57.1	99.38	5 19	16.65 4	1.0	0.22	9 22	16.58 8	5.0	1.09	8 54	17.08 4	8.3	1.79	5 47	13.47 14	12.8	2.77	55 32
15.67 10	57.2	99.39	7 10	17.26 3	1.0	0.23	4 15	13.06 15	5.2	1.12	5 40	16.66 8	8.3	1.79	59 23	16.48 9	12.8	2.77	3 26
18.16 3	57.2	99.40	8 35	18.70 1	1.1	0.24	2 24	17.47 2	5.2	1.12	4 32	17.59 3	8.4	1.82	5 20	15.29 2	12.8	2.78	1 09
16.06 9	57.2	99.40	58 48	18.63 1	1.1	0.24	2 08	16.12 8	5.3	1.15	3 29	18.06 3	8.4	1.83	0 12	15.90 8	12.9	2.79	3 35
16.95 6	57.2	99.41	2 48	18.59 2	1.1	0.25	0 22	16.99 4	5.3	1.15	9 47	17.11 7	8.6	1.87	0 35	18.48 2	12.9	2.79	57 39
18.70 1	57.3	99.43	1 10	16.70 9	1.1	0.25	58 22	16.32 7	5.4	1.18	6 34	15.14 10	8.6	1.87	7 58	16.59 6	12.9	2.80	8 26
16.75 8	57.4	99.44	4 22	17.73 3	1.1	0.25	9 43	18.63 1	5.4	1.18	58 06	18.63 1	9.1	1.97	57 52	18.37 3	12.9	2.81	4 07
18.56 1	57.4	99.44	57 06	16.29 7	1.1	0.25	9 54	17.85 3	5.5	1.19	9 30	15.64 10	9.1	1.98	1 39	15.58 9	13.1	2.84	57 22
16.82 8	57.4	99.45	7 20	16.84 7	1.4	0.30	7 50	18.26 2	5.5	1.20	59 31	17.35 3	9.1	1.98	6 04	17.19 3	13.1	2.84	59 08
17.78 3	57.5	99.47	4 47	16.51 9	1.5	0.32	0 09	17.15 7	5.5	1.21	58 13	17.66 3	9.2	2.01	2 25	15.54 9	13.1	2.85	55 58
18.56 1	57.5	99.47	58 48	16.59 6	1.6	0.34	57 48	17.78 2	5.5	1.21	8 02	18.70 1	9.3	2.02	3 28	18.41 3	13.1	2.85	0 42
18.50 1	57.5	99.47	56 11	16.84 4	1.8	0.39	0 23	17.46 3	5.6	1.23	55 10	17.78 3	9.3	2.02	55 56	18.21 3	13.1	2.85	8 07
17.89 3	57.6	99.49	3 24	13.16 17	1.8	0.41	57 57	15.04 12	5.8	1.27	0 26	16.37 8	9.3	2.03	6 19	16.01 8	13.2	2.87	7 21
14.62 11	57.7	99.51	55 25	17.56 3	1.9	0.42	55 28	18.23 3	6.1	1.32	2 43	16.75 8	9.3	2.03	59 17	18.76 1	13.2	2.87	0 19
18.18 3	57.9	99.54	1 53	18.23 2	1.9	0.43	57 51	16.68 8	6.1	1.32	55 51	14.53 13	9.4	2.04	55 44	18.33 3	13.4	2.90	55 38
17.06 3	57.9	99.55	1 42	18.35 1	1.9	0.43	56 46	18.31 3	6.2	1.34	56 03	15.20 11	9.4	2.04	5 17	17.21 4	13.4	2.91	58 22
17.25 3	58.1	99.58	59 50	18.16 3	2.0	0.45	5 26	16.75 7	6.2	1.34	58 49	17.38 3	9.5	2.06	2 28	17.13 3	13.4	2.91	8 44
17.22 3	58.2	99.60	58 33	17.41 3	2.3	0.50	56 40	17.44 3	6.2	1.34	5 55	17.10 6	9.5	2.06	56 47	13.68 16	13.5	2.92	56 12
13.22w 14	58.3	99.63	59 11	17.76 3	2.5	0.54	57 50	16.94 6	6.2	1.35	58 41	17.01 5	9.5	2.07	58 19	18.08 3	13.5	2.93	4 04
18.25 3	58.4	99.66	55 03	17.31 3	2.5	0.54	5 58	17.63 3	6.2	1.35	5 18	17.97 3	9.6	2.08	2 13	18.17 3	13.5	2.93	0 04
17.07 6	58.4	99.66	56 44	18.70 1	2.6	0.57	1 23	16.05 8	6.3	1.36	3 45	17.61 3	9.7	2.10	58 05	17.74 3	13.6	2.95	9 08
17.86 2	58.7	99.72	57 56	18.72 2	2.6	0.57	4 04	17.59 3	6.3	1.37	5 38	15.57 9	9.7	2.11	9 29	16.98 4	13.6	2.95	6 36
14.76 11	58.7	99.72	57 21	18.42 2	2.6	0.57	1 49	18.29 3	6.4	1.38	7 24	14.43 13	9.8	2.12	0 23	15.24 12	13.7	2.96	5 59
17.25 3	58.7	99.72	55 35	17.44 3	2.6	0.57	4 24	15.06 12	6.5	1.41	5 42	18.35 3	9.8	2.13	56 29	17.59 3	13.7	2.97	59 54
18.13 3	58.7	99.72	55 25	16.89: 1	2.7	0.58	4 32	18.56 1	6.5	1.41	3 52	17.77 3	9.9	2.15	58 04	17.02 3	13.7	2.97	58 10
15.16 10	58.7	99.72	4 33	16.71 7	2.7	0.58	1 41	16.04 9	6.5	1.41	56 08	18.62 3	9.9	2.15	6 39	14.91 12	13.9	3.00	7 07
18.16 3	58.8	99.74	1 03	17.70 3	2.7	0.58	57 15	15.68 8	6.6	1.42	58 54	18.15 3	10.0	2.16	0 16	16.07 8	13.9	3.00	9 21
17.06 7	58.8	99.74	2 45	17.30 2	2.7	0.59	58 15	17.26 3	6.6	1.42	57 09	14.68 11	10.0	2.16	0 06	15.10 11	13.9	3.01	6 41
18.70 1	58.9	99.77	1 47	17.15 3	2.9	0.63	59 24	18.08 3	6.6	1.43	59 22	15.61 9	10.0	2.17	59 03	16.64 2	13.9	3.01	6 20
16.84 7	58.9	99.77	5 09	18.47 3	3.1	0.67	3 01	15.32 10	6.7	1.44	0 10	18.64 2	10.2	2.21	6 10	17.23 3	14.0	3.03	2 27
18.43 1	58.9	99.77	8 15	18.15 3	3.1	0.68	3 16	15.94 9	6.7	1.44	1 19	18.07 3	10.2	2.21	8 04	18.76 1	14.1	3.04	0 26
14.79 11	59.0	99.78	6 30	16.67 7	3.2	0.69	2 20	17.42 3	6.7	1.44	3 11	17.89 3	10.4	2.25	9 41	17.12 3	14.1	3.04	59 03
13.64 16	59.0	99.79	56 03	18.17 3	3.2	0.69	5 02	18.28 3	6.7	1.46	4 35	17.03 4	10.5	2.27	4 01	18.29 3	14.2	3.08	3 04
16.27 8	59.1	99.81	2 03	17.87 2	3.2	0.71	1 28	17.21 7	6.7	1.46	57 17	17.30 3	10.5	2.28	3 41	17.91 3	14.2	3.08	3 38
17.45 3	59.2	99.83	0 52	17.84 2	3.3	0.73	58 56	17.97 3	6.7	1.46	8 14	17.02 3	10.5	2.28	8 02	16.96 7	14.3	3.10	3 00
15.92 9	59.3	99.85	6 53	14.44 13	3.5	0.76	5 57	17.37 3	6.8	1.47	8 36	18.56 1	10.6	2.30	5 22	17.12 3	14.5	3.15	58 13
16.40 8	59.4	99.87	8 20	16.84 8	3.5	0.77	1 05	17.36 3	6.8	1.47	58 40	9.63w 9	10.6	2.30	1 08	17.86 3	14.5	3.15	8 55
13.94 13	59.4	99.87	7 34	17.10 6	3.7	0.80	59 23	18.15 3	6.8	1.47	58 02	17.46 3	10.7	2.33	1 46	18.76 1	14.6	3.16	1 12
15.29 11	59.4	99.88	6 19	17.18 3	3.7	0.81	6 52	17.07 4	6.8	1.48	6 25	18.09 2	10.8	2.35	9 21	18.79 2	14.7	3.18	58 25
16.57 8	59.4	99.88	0 47	17.73 3	3.8	0.82	5 12	16.92 3	6.8	1.48	7 41	15.76 9	10.9	2.36	0 28	17.65 3	14.7	3.18	8 18
17.58 3	59.4	99.88	0 32	17.55 3	3.8	0.82	2 25	17.93 3	6.9	1.49	57 34	10.50w 9	11.0	2.38	4 16	16.62 8	14.7	3.19	7 25
17.50 3	59.5	99.89	4 25	16.91 8	3.9	0.84	0 14	17.17 3	6.9	1.49	57 31	16.24 8	11.2	2.42	0 50	17.23 3	14.9	3.22	7 57
17.07 7	59.5	99.90	56 56	18.02 3	3.9	0.84	59 19	15.22 12	6.9	1.50	58 20	17.90 3	11.2	2.42	0 21	18.43 3	14.9	3.23	0 34
18.09 3	59.6	99.93	7 28	17.61 3	4.0	0.86	4 26	16.80 8	7.0	1.52	3 46	18.46 2	11.3	2.44	2 47	16.97 7	14.9	3.23	56 36
16.35 7	59.6	99.93	9 17	18.43 1	4.1	0.89	0 08	15.44 12	7.1	1.55	1 12	18.32 3	11.6	2.51	2 07	18.36 3	15.0	3.24	59 44
18.43 1	59.7	99.95	8 53	17.55 3	4.1	0.89	4 49	18.49 3	7.3	1.58	3 13	18.76 1	11.6	2.51	1 13	17.04 8	15.0	3.24	4 00
15.80 8	59.8	99.97	3 53	10.99w 10	4.2	0.90	56 52	13.22 16	7.3	1.58	2 08	16.40 8	11.6	2.51	4 01	17.33 3	15.0	3.25	7 50
16.66 8	60.0	0.01	7 20	15.45 9	4.2	0.91	4 30	18.50 1	7.3	1.58	7 37	17.06 6	11.6	2.51	56 46	18.70 1	15.1	3.26	0 41
17.92 3	60.1	0.02	1 34	18.12 3	4.2	0.91	7 10	17.79 3	7.4	1.60	59 25	18.70 1	11.7	2.53	59 24	14.70 11	15.1	3.26	4 14
18.63 1	60.1	0.03	1 07	17.59 3	4.3	0.92	6 56	13.61 14	7.4	1.61	3 38	17.67 3	11.7	2.53	0 18	17.69 3	15.1	3.29	2 22
15.37 12	60.1	0.03	57 49	17.71 3	4.5	0.98	1 31	18.54 2	7.5	1.63	58 40	18.31 3	11.8	2.56	6 49	18.13 3	15.1	3.29	3 43
16.89 7	60.2	0.04	4 25	17.86 3	4.5	0.98	3 59	17.61 4	7.7	1.66	0 25	18.56 1	11.9	2.58	55 37	18.63 1	15.2	3.30	57 37
17.47 3	60.2	0.05	56 48	17.96 3	4.6	1.00	9 00	12.62 13	7.7	1.67	2 18	16.55 9	12.0	2.59	2 39	16.63 8	15.2	3.31	3 21
16.97 3	60.3	0.07	4 03	18.42 3	4.6	1.01	56 00	17.45 3	7.8	1.68	3 55	17.87 3	12.0	2.61	2 50	15.06 11	15.2	3.31	6 13
17.90 3	60.7	0.16	58 08	18.70 2	4.9	1.07	4 31	16.34 9	7.8	1.69	57 30	16.60 6	12.1	2.62	9 11	17.46 3	15.3	3.32	56 53
17.24 3	60.8	0.18	59 31	16.94 4	4.9	1.07	4 39	13.77 15	8.0	1.72	57 48	17.27 3	12.2	2.65	8 04	18.63 1	15.4	3.36	2 01
15.56 9	60.8	0.18	58 17	18.08 2	5.0	1.08	4 22	17.18 3	8.1	1.74	5 17	15.89 9	12.4	2.69	59 28	18.32 3	15.5	3.37	2 36
17.83 3	60.8	0.18	7 52	15.52 9	5.0	1.08	4 07	18.76 1	8.1	1.76	1 00	18.57 3	12.5	2.71	57 24	18.33 3	15.5	3.37	5 46
15.22 8	60.9	0.19	9 16	17.48 3	5.0	1.08	55 41	15.87 9	8.2	1.77	3 26	15.37 2	12.6	2.72	1 08	18.28 3	15.7	3.39	0 19
17.28 3	60.9	0 21	5 52	16.44 8	5.0	1.09	5 49	15.46 12	8.2	1.78	1 33	18.19 3	12.6	2.73	55 25	17.42 4	15.7	3.39	59 38

25 prec. + 58$^{\mathrm{s}}$.0, + 2′ 10″

601—660					661—720					721—780					781—840					841—900				
Mag.		α 0^{m}	x	$y+60'$ / y	Mag.		α 0^{m}	x	$y+60'$ / y	Mag.		α 0^{m}	x	$y+60'$ / y	Mag.		α 0^{m}	x	$y+60'$ / y	Mag.		α 0^{m}	x	$y+60'$ / y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
15.51	10	15.7	3.39	59 04	17.17	3	20.3	4.41	56 15	18.18	2	24.0	5.20	4 58	17.91	3	27.7	6.00	5 52	18.00	2	32.1	6.94	2 15
17.88	3	15.7	3.40	57 08	17.30	3	20.4	4.43	59 06	18.14	3	24.0	5.20	7 19	14.02	13	27.7	6.01	55 10	16.03	8	32.1	6.95	59 12
18.43	1	15.9	3.45	9 46	17.81	3	20.5	4.44	9 25	17.18	7	24.0	5.21	0 10	18.50	1	27.8	6.03	57 09	18.15	3	32.1	6.95	9 09
17.75	3	16.0	3.46	6 47	13.54	16	20.5	4.45	3 38	17.79	3	24.1	5.23	1 35	17.93	3	27.9	6.05	0 33	15.99	8	32.1	6.96	1 39
17.29	3	16.0	3.47	1 12	18.43	3	20.6	4.46	5 51	16.75	8	24.1	5.23	55 29	18.54	2	28.0	6.06	4 25	16.40	8	32.1	6.96	3 57
17.37	3	16.0	3.47	59 12	16.96	7	20.6	4.47	9 01	18.04	3	24.2	5.25	9 31	18.16	3	28.1	6.09	57 14	17.60	2	32.2	6.98	7 57
18.46	3	16.1	3.48	6 15	18.87	3	20.6	4.47	5 55	16.84	7	24.3	5.26	0 28	14.39	12	28.2	6.11	56 39	17.53	3	32.3	6.99	56 22
14.42	12	16.3	3.52	2 56	14.68	12	20.7	4.49	9 34	17.25	3	24.3	5.27	55 41	18.33	3	28.3	6.13	57 48	18.44	3	32.3	7.01	6 22
17.15	3	16.5	3.57	55 10	18.23	3	21.0	4.54	0 44	16.53	8	24.3	5.27	7 51	18.06	2	28.3	6.13	5 13	16.72	7	32.3	7.01	0 01
17.22	3	16.5	3.57	4 15	15.47	10	21.0	4.55	7 06	18.76	2	24.5	5.30	59 50	15.68	10	28.4	6.16	0 29	18.22	2	32.4	7.02	3 51
17.11	7	16.5	3.58	0 36	16.76	4	21.1	4.57	8 06	16.36	3	24.5	5.31	9 13	17.49	3	28.5	6.17	4 06	14.88	12	32.4	7.03	3 34
17.69	3	16.6	3.59	55 28	17.07	3	21.1	4.57	8 15	15.44	9	24.7	5.34	56 12	16.37	9	28.5	6.17	59 29	15.68	6	32.5	7.04	5 35
16.67	7	16.6	3.61	55 48	16.21	6	21.2	4.58	9 55	16.11	7	24.7	5.34	4 50	16.71	8	28.6	6.20	5 47	16.48	8	32.5	7.04	57 46
17.06	7	16.6	3.61	58 50	15.21	9	21.4	4.62	9 10	16.40	9	24.7	5.35	3 32	17.33	3	28.7	6.22	9 31	18.56	1	32.6	7.06	0 34
18.40	3	16.7	3.62	0 27	15.23	12	21.4	4.62	56 06	13.55	16	24.8	5.38	9 24	14.74	11	28.7	6.23	59 26	17.20	3	32.6	7.06	5 55
14.94	12	16.7	3.62	5 57	18.37	3	21.5	4.65	1 56	17.90	1	24.8	5.38	58 15	16.43	8	28.9	6.26	6 34	18.20	3	32.7	7.09	56 02
16.32	8	16.7	3.62	8 25	14.98	12	21.6	4.67	7 13	15.94	8	24.9	5.41	5 49	16.40	8	28.9	6.27	4 12	18.25	3	32.8	7.10	58 55
16.24	7	16.7	3.63	3 39	17.03	3	21.6	4.68	7 30	17.29	3	25.1	5.44	7 03	18.03	3	28.9	6.27	4 23	18.19	3	32.9	7.12	3 47
18.17	3	16.9	3.66	0 11	16.73	8	21.7	4.69	6 48	17.78	3	25.2	5.47	8 34	15.32	9	29.0	6.28	55 27	18.09	3	33.1	7.17	9 48
17.20	6	17.0	3.68	3 41	18.06	3	21.7	4.70	58 31	18.56	1	25.3	5.48	57 49	16.75	8	29.0	6.28	9 35	18.50	1	33.1	7.17	56 05
18.72	3	17.1	3.71	1 57	16.75	8	21.7	4.71	55 10	18.33	3	25.3	5.49	56 13	14.94	10	29.2	6.32	0 58	17.40	3	33.1	7.17	59 36
18.27	3	17.2	3.73	55 05	16.62	9	21.7	4.71	3 10	18.63	1	25.3	5.49	59 34	11.99	11	29.2	6.33	8 17	16.67	7	33.2	7.18	7 29
17.38	3	17.3	3.75	57 58	18.70	1	21.8	4.72	1 39	16.02	6	25.3	5.49	57 23	17.07	3	29.3	6.35	5 02	18.50	1	33.3	7.20	58 15
17.59	3	17.3	3.75	3 59	18.63	1	21.8	4.73	59 22	15.00	11	25.4	5.51	59 21	16.22	8	29.4	6.37	5 25	18.36	3	33.3	7.21	58 25
14.89	12	17.3	3.75	2 08	12.47	15	21.9	4.74	2 15	18.63	1	25.4	5.51	3 24	15.97	7	29.4	6.37	2 10	17.95	3	33.3	7.21	9 15
17.75	3	17.4	3.76	4 22	15.84	7	21.9	4.75	1 14	17.10	3	25.5	5.53	7 36	16.84	7	29.6	6.41	3 04	18.27	3	33.5	7.24	6 08
17.89	3	17.4	3.77	7 35	16.69	8	22.0	4.77	6 34	11.99	14	25.7	5.56	1 39	17.37	3	29.6	6.41	5 30	16.93	7	33.5	7.26	55 01
18.43	3	17.5	3.79	55 06	17.36	3	22.0	4.77	55 41	17.68	3	25.9	5.61	55 30	18.09	3	29.8	6.44	5 36	17.67	3	33.6	7.27	56 50
17.59	3	17.6	3.80	55 15	16.69	8	22.1	4.78	56 46	17.53	3	25.9	5.61	9 05	16.74	8	29.8	6.44	7 11	17.62	3	33.6	7.28	4 15
16.98	7	17.7	3.83	58 35	14.83	11	22.1	4.79	59 08	17.86	2	26.1	5.66	58 52	16.82	8	29.8	6.44	56 14	18.15	3	33.6	7.28	8 23
17.68	2	17 8	3.84	55 51	17.70	3	22.1	4.79	3 42	15.50	10	26.3	5.69	58 52	17.72	3	29.9	6.48	0 54	13.88	14	33.7	7.30	59 23
18.27	3	17.8	3.86	57 08	18.38	3	22.3	4.83	4 12	16.23	8	26.2	5.69	57 02	18.17	3	29.9	6.48	8 30	17.38	3	33.7	7.30	56 06
17.78	3	17.9	3.87	6 35	16.92	4	22.3	4.83	5 52	14.85	12	26.3	5.70	5 15	17.13	3	30.1	6.53	56 22	16.96	6	33.8	7.33	5 10
16.99	4	17.9	3.88	8 08	17.94	3	22.5	4.87	56 34	18.61	3	26.3	5.70	8 52	16.62	7	30.1	6.53	55 00	16.48	8	33.9	7.34	0 59
18.76	2	18.0	3.89	0 27	18.33	3	22.6	4.90	55 16	16.82	3	26.3	5.71	58 07	18.18	3	30.2	6.55	1 21	18.32	3	33.9	7.35	1 09
18.56	1	18.0	3.91	56 29	15.24	8	22.6	4.91	55 06	18.20	3	26.3	5.71	0 37	17.46	3	30.3	6.56	59 52	17.11	7	34.0	7.37	0 52
13.26	14	18.1	3.93	4 09	18.49	3	22.6	4.91	1 23	17.10	6	26.4	5.72	2 09	18.35	1	30.3	6.57	59 00	17.16	3	34.3	7.42	3 21
18.20	3	18.2	3.95	1 31	16.63	8	22.6	4.91	8 01	16.50	6	26.5	5.74	8 00	17.30	3	30.4	6.58	4 44	18.50	1	34.4	7.45	2 59
16.89	8	18.3	3.97	7 17	18.38	3	22.7	4.93	5 20	15.84	7	26.5	5.75	55 45	16.92	3	30.4	6.58	4 58	18.56	2	34.6	7.49	58 58
14.88	12	18.4	3.98	9 13	17.34	3	22.7	4.93	2 58	17.71	3	26.6	5.76	57 44	16.85	8	30.4	6.58	6 32	18.05	3	34.7	7.50	5 48
17.81	3	18.4	3.98	3 20	16.79	8	22.8	4.94	6 22	17.14	3	26.8	5.80	59 15	15.77	10	30.4	6.59	0 06	17.20	3	34.8	7.52	2 39
16.61	8	18.6	4.02	56 25	18.63	1	22.9	4.96	3 34	17.18	3	26.8	5.81	7 35	17.84	3	30.5	6.61	7 20	16.89	4	34.9	7.54	56 16
17.43	3	18.7	4.05	7 37	14.42	13	22.9	4.97	4 13	15.81	10	26.8	5.81	6 15	15.29	10	30.6	6.63	7 24	18.43	1	35.1	7.61	7 39
15.40	8	18 7	4.06	4 19	13.77	17	23.1	5.00	58 57	17.05	3	26.8	5.81	8 35	14.82	11	30.7	6.64	9 15	17.94	2	35.5	7.68	7 44
18.13	3	18.8	4.08	3 12	15.38	12	23.1	5.01	59 05	18.19	3	26.9	5.83	9 02	18.56	1	30.8	6.66	0 50	18.13	3	35.5	7.68	6 35
17.17	3	18.8	4.08	57 19	18.09	3	23.1	5.01	59 55	15.80	10	26.9	5.83	0 54	15.49	9	30.9	6.69	55 45	18.23	3	35.6	7.71	6 10
17.47	3	18 8	4.08	59 59	16.85	7	23.1	5.01	0 24	17.29	3	27.0	5.85	3 59	18.66	2	31.0	6.70	1 09	17.05	7	35.6	7.71	0 58
16.76	4	18.9	4.10	8 04	16.46	9	23.2	5.02	0 54	17.34	3	27.1	5.86	3 41	17.01	3	31.0	6.70	9 29	16.36	8	35.7	7.72	7 49
14.75	12	19.0	4.12	7 19	17.58	2	23.2	5.02	57 25	16.88	3	27.1	5.87	58 33	17.72	3	31.0	6.71	59 49	16.66	8	35.7	7.72	3 27
16.84	7	19.3	4.19	9 08	15.75	8	23.4	5.06	1 18	18.07	3	27.2	5.88	4 41	17.01	3	31.0	6.71	59 19	16.54	8	35.7	7.72	58 06
18.70	1	19.4	4.21	59 50	17.16	7	23.4	5.07	3 50	16.94	3	27.2	5.89	58 48	18.13	3	31.1	6.73	59 04	15.72	9	35.7	7.73	58 16
17.89	3	19.5	4.22	6 57	18.56	1	23.6	5.10	56 51	17.35	3	27.3	5.90	55 10	17.39	3	31.3	6.77	5 54	18.19	3	35.8	7.74	3 21
18.25	3	19.6	4.24	5 07	18.38	2	23.6	5.11	56 10	17.98	1	27.4	5.92	58 23	16.64	8	31.4	6.81	58 01	17.99	3	35.8	7.76	59 12
17.42	3	19.6	4.24	59 10	17.70	3	23.7	5.12	59 20	18.36	3	27.4	5.92	0 29	17.13	7	31.7	6.86	2 50	17.14	3	35.9	7.77	55 38
18.21	3	19.7	4.27	8 05	18.50	1	23.7	5.13	6 52	16.48	8	27.4	5.92	4 14	16.66:	1	31.8	6.89	9 34	16.74	7	35.9	7.77	4 24
17.47	3	19.8	4.29	58 07	16.24	8	23.8	5.14	8 59	18.56	1	27.5	5.95	2 35	18.56	1	31.9	6.91	0 31	14.76	12	36.0	7.81	56 23
16.40	8	19.9	4.30	55 52	16.77	4	23.8	5.14	8 58	17.38	3	27.5	5.96	59 14	17.70	3	31.9	6.91	4 32	17.78	3	36.1	7.82	9 55
17.37	3	20 1	4.34	55 57	18.56	1	23.8	5.16	5 35	17.08	3	27.6	5.98	59 25	17.93	3	32.0	6.92	6 16	18.36	2	36.2	7.85	4 08
16.97	4	20 2	4.37	2 15	18.32	3	23.9	5.17	56 58	17.92	3	27.6	5.98	2 52	18.50	1	32.0	6.92	56 25	18.06	3	36.3	7.86	5 25
17.43	3	20 3	4.41	3 48	18.36	3	24.0	5.19	2 08	16.38	9	27.7	6.00	59 49	17.15	3	32.0	6.93	58 55	18.10	3	36.5	7.91	7 48

25 prec. + $58^{s}.0$, + 2′ 11″

901—930

Mag.		α 0^{m}	x	y+60′ / y
		s	′	′ ″
15.36	9	36.5	7.91	58 19
17.27	3	36.6	7.92	2 17
17.78	3	36.8	7.97	4 59
16.77	8	36.9	7.99	2 48
16.75	7	37.0	8.01	7 30
18.34	2	37.1	8.02	55 42
18.43	1	37.1	8.03	55 29
18.56	2	37.2	8.04	59 21
18.16	3	37.3	8.07	57 40
17.79	3	37.3	8.07	8 10
18.42	2	37.4	8.10	56 03
15.95	7	37.5	8.12	59 31
15.12	8	37.6	8.15	9 43
17.88	3	37.7	8.16	1 44
13.45	15	37.7	8.17	4 01
18.27	3	37.8	8.19	1 11
17.62	3	37.8	8.19	59 37
18.29	3	37.8	8.19	59 04
15.99	9	38.0	8.22	57 57
18.43	1	38.0	8.22	7 56
16.64	5	38.1	8.25	5 08
16.30	8	38.2	8.27	59 40
17.23	3	38.3	8.31	8 49
15.86	8	38.4	8.32	4 36
17.35	3	38.6	8.36	4 40
18.08	3	38.6	8.36	55 55
16.86	3	38.6	8.37	7 34
16.02	8	38.7	8.39	7 18
17.33	3	38.9	8.42	0 46
17.53	3	38.9	8.43	4 17

931—960

Mag.		α 0^{m}	x	y+60′ / y
		s	′	′ ″
15.12	12	39.1	8.46	3 43
16.68	8	39.1	8.47	55 35
18.50	1	39.1	8.47	59 39
16.86	8	39.2	8.49	3 54
18.19	3	39.3	8.51	57 10
17.43	3	39.4	8.52	57 57
17.80	2	39.4	8.52	3 40
18.43	1	39.5	8.54	6 41
18.09	3	39.5	8.56	7 09
16.35	4	39.6	8.58	9 14
17.10	3	39.6	8.58	1 31
17.53	3	39.7	8.59	56 00
16.89	3	39.9	8.64	7 47
18.43	1	40.0	8.67	6 04
17.79	3	40.0	8.67	59 57
17.99	3	40.1	8.68	58 31
17.79	3	40.1	8.69	0 20
17.71	3	40.3	8.73	3 32
16.63	7	40.4	8.75	1 33
14.12	13	40.4	8.75	57 34
15.50	9	40.5	8.76	59 01
18.50	1	40.5	8.77	3 45
17.72	2	40.5	8.77	9 05
18.50	1	40.6	8.79	58 28
17.00	7	40.7	8.80	58 16
16.23	10	40.9	8.85	55 58
18.22	2	40.9	8.86	59 15
16.81	7	41.0	8.87	59 49
17.19	3	41.1	8.90	59 39
17.49	3	41.2	8.92	0 27

961—990

Mag.		α 0^{m}	x	y+60′ / y
		s	′	′ ″
16.13	6	41.2	8.92	6 27
18.50	1	41.3	8.94	4 25
17.02	4	41.4	8.96	57 50
14.52	12	41.5	8.99	0 44
16.92	3	41.6	9.00	2 54
16.76	8	41.6	9.01	2 16
16.47	8	41.7	9.02	57 29
17.14	3	41.8	9.05	57 58
16.37	8	41.8	9.05	3 50
17.03	3	41.8	9.05	5 28
16.75	7	41.9	9.07	59 52
17.32	3	41.9	9.08	6 00
18.77	3	42.0	9.09	5 22
18.50	1	42.0	9.09	58 20
17.63	3	42.0	9.09	56 53
18.09	3	42.0	9.11	57 57
16.80	8	42.0	9.11	55 32
17.75	2	42.0	9.11	6 40
18.43	1	42.2	9.14	7 08
18.33	3	42.2	9.14	3 11
17.33	3	42.2	9.14	1 16
16.06	9	42.2	9.15	56 15
18.50	1	42.3	9.16	3 27
18.34	2	42.3	9.16	2 46
17.36	1	42.3	9.16	9 04
15.90	8	42.3	9.17	9 46
18.50	1	42.4	9.18	1 58
18.06	1	42.4	9.18	55 34
18.70	3	42.5	9.20	0 03
17.27	3	42.5	9.21	2 52

991—1020

Mag.		α 0^{m}	x	y+60′ / y
		s	′	′ ″
18.27	3	42.6	9.23	2 25
18.35	3	42.8	9.27	1 56
16.18	7	42.9	9.28	3 31
16.78	3	42.9	9.28	8 55
18.75	3	42.9	9.29	2 55
17.08	3	43.0	9.30	2 31
16.53	8	43.0	9.30	3 46
14.47	11	43.0	9.30	56 54
16.75	8	43.2	9.36	8 04
18.43	1	43.3	9.37	6 52
16.47	8	43.4	9.39	8 46
16.83	6	43.4	9.40	9 20
15.17	10	43.5	9.42	58 17
16.74	4	43.6	9.44	57 20
15.58	10	43.6	9.45	0 18
14.56	9	43.7	9.47	8 44
16.08	8	43.8	9.49	58 10
18.36	2	43.9	9.50	3 16
18.06	3	44.0	9.52	7 29
15.88	6	44.0	9.53	2 45
15.14	10	44.1	9.54	2 29
17.83	3	44.2	9.57	4 52
17.54	3	44.2	9.57	5 33
18.35	1	44.5	9.63	7 31
18.04	3	44.6	9.65	57 48
16.64	8	44.7	9.67	58 37
17.04	3	44.8	9.70	7 31
16.65	8	44.8	9.73	55 24
13.28	15	45.1	9.77	58 50
17.33	3	45.4	9.82	7 05

1021—1029

Mag.		α 0^{m}	x	y+60′ / y
		s	′	′ ″
18.08	2	45.4	9.82	2 20
15.18	10	45.4	9.82	2 05
17.85	3	45.6	9.87	58 48
16.49	7	45.6	9.88	3 01
16.92	4	45.6	9.88	8 15
17.49	3	45.7	9.89	5 48
17.43	3	46.1	9.98	56 33
15.08	9	46.1	9.99	57 49
16.91	3	46.3	10.00	4 30

25 prec. + $58^{\mathrm{s}}.0$, + 2′ 11″

18^{h} Area 63. Supplementary Stars + 29°, + 30°

1s—20s

Mag.		α 59^{m}	x	y+60′ / y
		s	′	′
16.47	7	18	91.0	1.2
17.57	2	19	91.1	59.2
16.57	2	19	91.1	0.3
16.47	7	19	91.1	1.0
13.85	12	19	91.2	0.2
15.99	8	20	91.2	2.9
15.01	7	20	91.3	1.4
16.77	2	20	91.3	2.4
16.43	7	20	91.3	3.4
14.23	8	20	91.4	57.6
16.75	2	21	91.5	1.1
16.64	7	21	91.6	59.4
17.85	2	21	91.6	1.8
18.82	2	21	91.6	2.8
14.84	9	21	91.6	3.6
16.01	6	21	91.6	3.8
16.77	2	21	91.6	4.8
16.75	2	22	91.7	57.8
17.75	2	22	91.7	58.3
18.73	2	22	91.7	59.1

21s—40s

Mag.		α 59^{m}	x	y+60′ / y
		s	′	′
17.03	2	22	91.7	0.4
16.11	7	22	91.7	0.6
18.65	2	22	91.8	56.8
14.93	8	22	91.8	58.7
17.91	2	22	91.8	2.2
16.56	2	23	91.9	0.0
17.50	2	23	91.9	2.7
18.45	2	23	91.9	3.5
16.75	2	23	92.0	2.8
18.07	2	23	92.0	4.3
18.72	2	24	92.1	56.8
14.53	7	24	92.1	59.2
15.16	6	24	92.1	3.3
16.81	2	23	92.1	4.7
18.11	2	24	92.2	57.7
16.54	6	24	92.2	59.4
17.09	2	24	92.2	1.1
16.65	3	24	92.2	4.2
16.37	3	24	92.2	5.2
16.61	2	24	92.2	5.5

41s—60s

Mag.		α 59^{m}	x	y+60′ / y
		s	′	′
17.63	2	24	92.2	6.4
18.09	2	24	92.3	58.9
14.81	10	24	92.3	2.3
17.93	2	24	92.3	2.4
18.45	2	24	92.3	2.6
17.77	2	25	92.4	56.8
18.77	2	25	92.4	58.6
16.48	3	25	92.4	0.6
16.75	2	25	92.4	3.9
18.79	2	25	92.5	56.7
16.62	2	25	92.5	59.8
14.49	10	25	92.5	0.6
18.21	2	26	92.6	57.4
16.52	6	26	92.6	58.7
17.91	2	26	92.7	55.9
16.77	2	26	92.7	58.1
16.63	4	27	92.8	54.7
18.32	2	27	92.8	57.8
17.18	2	27	92.8	59.0
14.66	9	27	92.8	59.7

61s—80s

Mag.		α 59^{m}	x	y+60′ / y
		s	′	′
17.94	2	27	92.8	1.4
14.90	10	27	92.8	2.0
18.59	2	27	92.8	4.6
18.63	2	26	92.8	5.6
17.01	2	27	92.8	6.4
15.57	7	27	92.9	6.6
16.52	7	27	93.0	1.2
15.56	6	28	93.0	2.0
16.06	7	28	93.0	7.3
18.47	2	28	93.1	56.8
17.98	2	28	93.1	4.3
16.79	2	28	93.1	7.8
16.72	2	29	93.2	56.4
16.72	2	29	93.2	2.2
16.18	7	29	93.2	3.2
16.07	7	29	93.2	3.8
15.45	7	29	93.2	5.2
18.35	2	29	93.2	5.4
18.63	2	29	93.2	5.5
16.52	3	29	93.2	8.2

81s—100s

Mag.		α 59^{m}	x	y+60′ / y
		s	′	′
16.37	6	29	93.3	2.1
16.40	7	30	93.4	55.0
16.07	7	30	93.4	56.3
18.59	2	30	93.4	56.8
15.37	7	29	93.4	0.3
18.77	2	30	93.4	2.0
17.00	2	30	93.5	59.4
17.81	2	30	93.5	59.8
16.54	3	30	93.5	4.5
15.99	7	30	93.6	54.0
18.07	2	30	93.6	55.0
16.61	3	30	93.6	0.0
16.84	3	30	93.6	4.6
18.84	2	30	93.6	5.3
17.45	2	30	93.6	5.9
17.07	2	30	93.6	7.8
16.96	2	31	93.7	54.6
15.00	10	31	93.8	54.6
18.41	2	31	93.8	58.4
15.64	8	31	93.8	4.9

25 prec. + $58^{\mathrm{s}}.0$, + 2′ 9″

101s—160s					161s—220s					221s—280s					281s—340s					341s—400s				
Mag.		α 59^{m}	x	$y+60'$ / y	Mag.		α 59^{m}	x	$y+60'$ / y	Mag.		α 59^{m}	x	$y+60'$ / y	Mag.		α 0^{m}	x	$y+60'$ / y	Mag.		α 0^{m}	x	$y+60'$ / y
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
14.35	10	31	93.8	5.8	16.45	6	36	94.8	3.5	15.35	8	52	98.3	53.5	17.07	2	3	0.7	53.6	16.54	3	12	2.7	11.2
15.99	7	31	93.8	7.7	16.87	2	36	94.8	5.4	17.95	2	52	98.4	51.8	16.55	6	3	0.7	54.4	15.09	7	12	2.7	11.6
16.44	3	31	93.8	8.8	16.86	3	36	94.8	5.8	16.44	7	53	98.4	51.9	18.60	2	3	0.8	50.2	16.55	7	13	2.8	10.4
16.08	8	32	93.9	56.5	16.13	7	36	94.8	7.8	16.83	2	53	98.4	11.6	16.58	7	3	0.8	52.4	15.07	9	13	2.8	12.2
15.54	7	32	93.9	57.1	16.59	2	36	94.8	9.2	16.51	3	53	98.5	11.8	16.79	6	4	0.8	53.0	14.61	9	13	2.8	12.4
14.93	10	32	93.9	0.6	18.29	2	36	94.9	52.6	16.49	5	54	98.6	50.2	16.89	2	3	0.8	54.2	16.05	6	13	2.9	51.2
16.59	6	32	93.9	1.7	16.48	3	36	94.9	55.5	16.79	2	53	98.6	11.4	16.70	6	4	0.8	54.4	12.26	11	13	2.9	52.8
18.10	2	32	93.9	2.5	18.19	2	36	94.9	1.4	16.80	2	54	98.7	54.2	18.99	2	4	0.8	55.0	17.68	2	13	2.9	53.2
14.85	9	32	93.9	7.1	16.43	7	36	94.9	5.6	15.90	5	54	98.7	11.0	15.88	8	4	0.9	49.9	16.47	7	13	2.9	53.4
15.51	6	32	93.9	7.3	14.18	9	36	94.9	7.6	16.23	7	54	98.8	51.9	17.09	2	4	0.9	53.7	15.06	6	14	3.0	50.2
16.51	6	32	94.0	55.4	18.77	2	37	95.0	52.2	15.01	10	54	98.8	52.2	18.89	2	4	1.0	52.1	18.87	2	14	3.0	52.0
18.02	2	32	94.0	58.0	17.89	2	37	95.0	52.4	12.20	12	54	98.8	54.2	16.59	6	4	1.0	52.6	17.89	2	14	3.0	54.2
16.62	2	32	94.0	8.4	18.39	2	37	95.0	53.2	16.89	2	55	99.0	53.5	17.25	2	4	1.0	54.4	13.20	12	14	3.1	53.8
18.85	2	33	94.1	54.1	18.81	2	37	95.0	7.2	16.94	6	55	99.0	54.8	18.22	2	4	1.0	54.8	17.55	2	15	3.2	50.0
17.87	2	33	94.1	54.2	16.65	7	37	95.1	54.2	14.60	8	55	99.0	10.0	16.52	3	5	1.1	12.4	15.18	7	15	3.2	50.8
18.49	2	33	94.1	54.4	14.96	8	37	95.1	54.5	17.35	2	56	99.1	10.8	17.66	2	5	1.2	51.2	12.93	8	15	3.2	53.9
13.06	15	33	94.1	57.2	16.61	7	37	95.1	54.6	15.85	5	56	99.1	11.2	18.91	2	6	1.2	54.4	15.04	9	15	3.2	54.0
13.75	12	33	94.1	59.1	16.71	3	38	95.2	53.4	14.95	10	56	99.2	52.0	17.83	2	6	1.2	10.4	16.04	6	15	3.2	10.2
17.23	2	33	94.1	0.7	16.21	8	38	95.3	52.8	16.56	6	56	99.2	53.8	17.27	2	6	1.2	10.6	17.17	2	15	3.3	51.3
16.70	3	33	94.1	1.0	16.85	2	38	95.3	53.0	16.55	7	57	99.3	51.3	16.69	3	6	1.2	11.3	16.73	7	15	3.4	54.0
16.85	3	33	94.1	1.5	16.85	2	40	95.7	53.3	16.56	7	57	99.3	52.2	18.43	2	6	1.3	51.2	17.65	2	16	3.4	54.2
18.84	2	33	94.1	3.2	16.69	2	40	95.7	10.5	18.27	2	57	99.3	53.4	16.90	3	6	1.3	52.0	18.89	2	16	3.5	52.0
18.95	2	33	94.1	3.3	16.45	3	41	95.8	53.2	17.43	2	57	99.3	54.4	17.05	2	6	1.3	53.1	16.58	7	16	3.5	10.9
18.84	2	33	94.1	6.9	15.86	4	42	96.1	10.6	16.08	8	57	99.4	51.4	17.53	2	6	1.3	10.4	17.71	2	16	3.6	50.6
16.45	3	33	94.1	8.8	16.44	3	43	96.2	52.4	16.85	6	57	99.4	53.6	18.84	2	7	1.4	51.8	17.02	2	16	3.6	52.4
17.59	2	33	94.2	58.1	16.61	7	42	96.2	53.3	15.29	9	57	99.4	54.5	18.57	2	6	1.4	54.0	18.09	2	17	3.6	52.6
14.55	10	33	94.2	58.6	15.21	10	42	96.2	54.4	18.08	2	58	99.5	53.6	18.12	2	7	1.5	50.4	16.98	6	16	3.6	54.7
14.77	10	33	94.2	2.2	16.63	2	43	96.3	51.4	18.27	2	58	99.6	51.8	18.93	2	7	1.5	53.8	19.00	2	17	3.7	54.0
18.56	2	33	94.2	2.7	16.59	3	43	96.3	51.9	16.91	6	58	99.6	53.9	17.11	2	7	1.5	11.6	18.85	2	18	3.8	52.1
17.42	2	33	94.2	6.2	17.05	2	43	96.3	54.2	15.40	7	58	99.6	54.2	16.43	3	7	1.6	50.1	16.81	7	17	3.8	52.2
15.95	8	33	94.2	6.9	16.61	6	43	96.3	54.9	16.55	3	58	99.6	10.8	17.83	2	7	1.6	50.9	17.89	2	17	3.8	52.4
16.52	7	34	94.3	53.2	18.71	2	43	96.4	53.0	16.49	6	58	99.6	12.0	15.42	7	7	1.6	51.4	16.78	7	18	3.8	10.4
16.75	2	34	94.3	54.4	17.75	2	44	96.6	51.2	16.72	2	59	99.7	50.5	18.22	2	8	1.6	53.2	18.15	2	18	3.9	51.5
16.79	6	34	94.3	55.4	17.63	2	44	96.6	53.2	14.92	10	59	99.7	51.1	16.39	8	7	1.6	54.4	17.12	2	18	3.9	52.8
17.76	2	34	94.3	57.8	17.07	2	44	96.6	54.9	14.62	11	59	99.7	53.0	16.15	5	7	1.6	11.5	16.64	3	18	3.9	11.0
17.49	2	34	94.3	59.9	17.53	2	44	96.6	11.0	10.31	8	59	99.7	10.4	16.74	2	8	1.6	11.9	14.77	10	19	4.0	10.1
18.30	2	34	94.3	2.6	17.56	2	45	96.7	53.4	18.06	2	59	99.8	50.6	16.58	6	8	1.7	51.7	16.79	2	19	4.0	10.3
16.86	2	34	94.3	8.8	16.65	7	45	96.8	52.2	18.02	2	59	99.8	51.4	17.83	2	8	1.8	50.6	16.79	4	19	4.0	10.9
15.24	7	34	94.4	0.2	17.25	2	46	96.9	51.8	14.12	10	59	99.8	52.4	18.03	2	8	1.8	54.6	16.23	5	19	4.1	10.9
14.48	9	34	94.4	3.8	18.08	2	46	96.9	52.0	18.31	2	59	99.8	52.7	16.66	2	8	1.8	11.7	16.83	7	19	4.2	54.9
16.06	7	34	94.4	6.8	18.09	2	46	97.0	51.7	15.67	7	59	99.8	10.2	16.25	6	8	1.8	11.9	17.80	2	20	4.3	52.0
16.65	7	34	94.4	7.2	16.41	7	46	97.0	52.6	15.44	6	59	99.8	11.6	16.37	3	9	1.9	11.6	17.21	2	20	4.3	54.9
16.70	7	34	94.4	7.9	16.63	6	47	97.1	51.6	16.77	2	60	99.9	11.6	16.95	2	9	2.0	54.0	16.81	5	20	4.4	53.3
17.24	2	34	94.4	8.9	16.11	7	47	97.1	52.2	17.30	2	60	0.0	51.6	18.77	2	9	2.0	11.1	16.92	2	20	4.4	53.6
14.87	10	35	94.5	53.3	17.97	2	47	97.2	10.8	17.63	2	60	0.0	11.4	17.59	2	10	2.1	50.9	17.17	2	20	4.4	53.8
16.77	2	35	94.5	54.0	14.76	9	48	97.3	51.6	16.64	2	60	0.0	12.2	17.99	2	10	2.1	51.0	17.25	2	20	4.4	54.3
16.00	6	35	94.5	5.0	15.10	9	48	97.3	53.9	17.44	2	60	0.1	54.3	18.37	2	10	2.2	51.3	17.21	2	21	4.5	10.6
14.98	8	35	94.6	54.7	16.75	5	48	97.4	53.0	17.33	2	60	0.1	54.4	15.06	9	10	2.2	52.2	16.46	7	21	4.5	11.7
16.30	8	35	94.6	55.1	16.62	7	48	97.5	54.3	17.73	2	60	0.1	10.4	16.39	7	10	2.2	54.1	16.91	2	21	4.6	53.9
18.11	2	35	94.6	55.6	17.65	2	49	97.6	54.0	18.32	2	61	0.2	50.5	16.74	3	10	2.2	12.0	18.14	2	21	4.6	54.4
18.83	2	35	94.6	55.9	15.34	6	49	97.6	11.4	17.79	2	61	0.2	54.3	17.18	2	11	2.3	50.4	16.74	2	21	4.6	11.3
16.05	7	35	94.6	59.2	14.55	10	49	97.7	11.4	18.05	2	61	0.3	50.3	16.97	2	11	2.3	50.7	16.89	2	22	4.7	53.7
15.51	7	35	94.6	3.8	17.94	2	51	98.0	52.4	14.94	7	62	0.4	49.9	17.17	2	11	2.4	51.4	17.72	2	22	4.7	54.5
16.68	7	35	94.6	6.5	16.75	2	51	98.0	52.5	18.81	2	62	0.4	51.9	19.02	2	12	2.5	52.5	16.47	5	22	4.7	11.0
17.72	2	35	94.6	6.6	14.93	8	51	98.0	55.0	17.44	2	62	0.4	53.3	17.37	2	12	2.5	52.6	12.44	12	22	4.8	51.2
15.20	8	36	94.7	1.0	16.86	2	51	98.0	11.1	17.57	2	62	0.4	54.2	18.77	2	12	2.6	50.4	14.93	10	22	4.8	51.6
16.35	7	36	94.7	5.0	17.55	2	51	98.1	54.0	18.23	2	62	0.5	50.6	14.53	9	12	2.6	53.4	16.44	7	22	4.8	10.8
18.31	2	36	94.8	54.9	13.01	12	52	98.2	52.8	18.79	2	63	0.6	51.1	17.11	2	12	2.6	10.1	15.52	7	23	4.9	51.2
17.25	2	36	94.8	59.0	16.41	7	52	98.2	10.6	16.83	6	63	0.7	51.6	17.16	2	12	2.6	10.3	16.65	6	23	4.9	53.9
18.25	2	36	94.8	3.1	16.95	2	52	98.3	50.4	18.89	2	63	0.7	53.1	16.77	7	12	2.7	54.7	16.98	2	23	4.9	10.2

401s—460s					461s—520s					521s—580s					581s—628s				
Mag.		α 0m	x	y+60′ y	Mag.		α 0m	x	y+60′ y	Mag.		α 0m	x	y+60′ y	Mag.		α 0m	x	y+60′ y
		s	′	′			s	′	′			s	′	′			s	′	′
16.72	6	23	5.0	54.2	16.49	7	34	7.4	51.0	17.63	2	49	10.6	54.0	18.91	2	55	11.8	59.6
16.97	6	23	5.0	54.4	16.69	2	34	7.4	51.4	16.72	3	49	10.6	56.9	14.58	10	55	11.8	1.4
16.71	2	23	5.0	10.4	18.55	2	34	7.4	53.8	16.59	6	49	10.6	59.4	16.79	2	54	11.8	3.7
16.69	2	23	5.0	12.2	16.74	6	35	7.6	51.4	17.57	2	49	10.6	59.7	16.86	2	54	11.8	5.1
16.66	6	24	5.1	50.6	16.79	2	35	7.6	52.2	16.94	2	49	10.6	0.2	17.14	2	54	11.8	5.3
18.68	2	24	5.2	50.3	18.57	2	35	7.6	53.2	14.68	10	49	10.6	4.4	18.11	2	54	11.8	5.4
18.47	2	24	5.2	51.5	18.89	2	35	7.6	53.5	16.09	8	49	10.6	8.6	17.13	2	54	11.8	5.8
16.83	7	24	5.2	52.7	16.77	2	36	7.8	52.2	16.61	3	49	10.7	57.2	18.58	2	55	11.8	8.0
16.77	7	24	5.2	53.6	17.54	2	36	7.8	53.0	18.20	2	49	10.7	58.0	14.92	10	55	11.9	57.2
16.72	2	24	5.2	10.8	17.39	2	36	7.8	10.7	17.01	2	49	10.7	0.4	17.16	2	55	11.9	59.9
18.34	2	24	5.3	52.6	18.95	2	36	7.9	53.2	16.83	3	49	10.7	2.4	15.10	7	55	11.9	0.0
18.63	2	25	5.4	53.2	17.88	2	37	8.0	54.9	17.85	2	49	10.7	2.6	16.22	7	55	11.9	1.8
16.84	2	26	5.6	52.2	18.19	2	37	8.0	10.5	17.40	2	49	10.7	5.0	17.52	2	55	11.9	2.1
18.93	2	26	5.6	54.5	17.93	2	37	8.0	10.6	15.89	7	50	10.8	54.0	16.79	2	55	11.9	3.4
16.80	7	26	5.6	54.6	16.71	6	37	8.1	52.1	15.26	10	50	10.8	55.5	16.81	2	55	11.9	3.8
16.71	2	26	5.7	10.2	16.99	2	37	8.1	10.8	16.57	7	50	10.8	57.7	18.41	2	55	12.0	55.6
16.76	2	26	5.7	10.4	17.32	2	38	8.2	53.2	18.21	2	50	10.8	58.5	17.72	2	55	12.0	58.7
17.60	2	27	5.8	52.4	17.88	2	38	8.2	54.6	18.08	2	50	10.8	0.2	18.34	2	55	12.0	4.0
17.86	2	27	5.8	54.2	18.81	2	38	8.2	10.2	16.49	6	50	10.8	0.4	16.31	8	55	12.0	5.0
15.93	7	27	5.8	54.7	18.43	2	38	8.3	52.2	13.73	9	50	10.8	1.2	16.45	5	55	12.0	6.9
18.59	2	27	5.8	55.0	16.68	6	38	8.3	53.4	17.22	2	50	10.8	2.0	16.34	7	56	12.1	55.7
16.07	8	27	5.9	52.8	18.41	2	39	8.5	53.5	14.71	10	50	10.8	2.7	18.89	2	56	12.1	4.4
15.47	6	27	5.9	53.4	12.22	11	40	8.6	54.2	16.72	7	50	10.8	4.3	16.98	2	56	12.2	57.2
16.48	3	27	5.9	10.5	14.46	10	40	8.8	52.0	17.83	2	50	10.8	5.3	16.09	8	56	12.2	57.4
17.07	2	28	6.0	51.2	17.29	2	40	8.8	53.6	17.85	2	50	10.8	6.8	17.01	2	56	12.2	0.6
16.54	3	28	6.1	10.5	16.53	7	41	8.9	52.4	17.77	2	50	10.8	8.4	16.64	3	56	12.2	4.7
18.80	2	29	6.2	53.5	18.50	2	41	8.9	53.6	15.13	10	50	10.9	55.3	11.89	13	56	12.2	4.8
16.73	7	29	6.2	54.5	18.25	2	42	9.0	52.0	18.98	2	50	10.9	2.8	17.03	2	56	12.2	5.4
15.52	5	29	6.2	54.6	16.53	7	41	9.0	52.8	14.82	10	50	10.9	4.8	15.70	7	57	12.3	59.7
17.73	2	29	6.2	10.4	14.62	9	43	9.3	52.3	16.97	2	51	11.0	57.7	18.79	2	57	12.3	4.4
18.77	2	29	6.3	51.9	14.93	7	43	9.4	52.2	16.96	2	51	11.0	59.7	17.14	2	57	12.4	59.6
16.72	7	29	6.3	52.2	16.08	7	44	9.5	53.9	16.78	7	51	11.0	3.7	16.69	2	57	12.4	4.6
14.97	10	29	6.3	52.6	16.60	7	44	9.5	54.6	16.16	8	51	11.1	4.6	14.30	9	58	12.5	59.2
18.69	2	29	6.4	52.4	17.52	2	44	9.6	53.8	17.09	2	51	11.1	7.8	14.87	10	58	12.5	0.0
17.98	2	30	6.4	53.7	15.73	8	45	9.8	53.4	16.74	3	52	11.2	55.5	13.63	13	58	12.6	2.4
16.63	7	30	6.4	54.2	18.41	2	45	9.8	54.6	18.02	2	52	11.2	57.4	16.70	6	58	12.6	4.4
16.79	7	29	6.4	54.4	16.85	2	46	9.9	53.6	16.86	2	52	11.2	57.7	16.62	6	59	12.7	4.4
14.90	9	30	6.6	51.1	14.91	10	46	10.0	53.6	19.04	2	52	11.2	58.0	16.66	7	59	12.8	57.0
16.77	6	30	6.6	51.4	16.53	3	46	10.0	54.8	16.87	2	52	11.2	58.7	16.55	7	60	12.9	0.4
18.48	2	30	6.6	52.8	18.19	2	46	10.0	54.9	16.87	2	52	11.2	1.8	16.66	3	60	12.9	2.2
18.02	2	30	6.6	53.4	15.73	6	46	10.0	1.5	17.12	2	52	11.2	2.6	17.14	2	60	12.9	4.1
13.82	10	30	6.6	11.5	18.05	2	47	10.1	55.6	17.26	2	52	11.2	5.0	18.37	2	60	13.0	3.2
11.12	6	31	6.7	10.6	18.67	2	47	10.1	59.2	18.53	2	52	11.2	7.4	16.69	7	60	13.1	58.4
16.86	2	31	6.7	11.1	16.09	6	47	10.1	3.3	16.77	6	52	11.3	1.8	16.64	7	60	13.1	58.5
17.06	2	32	6.8	52.2	16.45	7	47	10.2	54.1	12.97	16	52	11.3	2.6	17.40	2	61	13.2	1.4
18.44	2	32	6.8	52.8	15.14	8	47	10.2	57.2	16.91	2	52	11.3	6.7	17.85	2	61	13.3	1.6
18.53	2	31	6.8	54.2	19.05	2	47	10.2	58.2	15.94	5	53	11.4	4.2	17.40	2	62	13.4	0.3
17.81	2	31	6.8	10.2	17.93	2	47	10.2	0.3	15.56	8	53	11.4	6.3	16.61	7	62	13.5	0.7
14.28	10	32	6.9	52.5	16.39	6	47	10.2	5.1	18.40	2	53	11.4	6.4					
18.76	2	32	6.9	53.2	18.21	2	47	10.2	8.6	16.25	8	53	11.5	3.0					
18.75	2	32	7.0	52.2	16.69	2	48	10.3	54.7	17.88	2	53	11.6	56.0					
16.84	2	32	7.0	53.4	14.84	10	48	10.3	0.5	13.71	15	53	11.6	58.2					
18.91	2	32	7.0	55.0	15.09	9	48	10.3	4.2	17.14	2	53	11.6	0.8					
17.58	2	33	7.1	51.6	16.40	7	48	10.3	4.6	16.71	7	54	11.6	3.9					
16.77	2	33	7.2	52.6	16.98	2	48	10.3	5.7	17.03	2	54	11.6	5.2					
17.47	2	33	7.2	53.2	16.68	3	48	10.4	56.9	16.64	5	54	11.6	7.2					
16.63	5	33	7.2	11.2	16.89	2	48	10.4	0.7	17.66	2	54	11.7	57.0					
16.74	7	34	7.3	51.0	18.70	2	48	10.4	1.8	16.67	2	54	11.7	57.4					
18.72	2	34	7.3	54.1	18.68	2	48	10.4	9.0	13.87	11	54	11.7	1.6					
16.64	2	34	7.3	11.0	17.98	2	49	10.6	53.8	16.96	2	55	11.8	59.5					

25 prec. + 58.s0, + 2′ 11

Area 64. Center for 1900: 19^h 58^m + 30° 0′ (15′ × 15′)

1—60					61—120					121—180					181—240					241—300				
Mag.		α 56^m	x	$y+60'$ / y	Mag.		α 56^m	x	$y+60'$ / y	Mag.		α 57^m	x	$y+60'$ / y	Mag.		α 57^m	x	$y+60'$ / y	Mag.		α 57^m	x	$y+60'$ / y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
18.36	1	57.6	86.50	53 57	18.05	3	59.6	86.92	55 03	17.91	3	1.4	87.33	54 31	16.36	8	3.4	87.75	54 42	16.35	8	5.4	88.18	2 31
17.16	3	57.6	86.50	2 42	16.52	8	59.6	86.92	56 05	15.99	9	1.5	87.34	58 30	18.08	3	3.4	87.76	1 56	18.16	2	5.5	88.21	54 36
17.78	3	57.6	86.51	0 28	14.91	11	59.6	86.93	53 23	17.39	3	1.5	87.34	57 54	17.34	3	3.4	87.76	5 00	18.17	3	5.6	88.22	57 35
17.39	3	57.6	86.51	59 26	16.08	8	59.7	86.94	58 22	17.55	3	1.5	87.34	0 41	16.83	3	3.5	87.77	53 50	15.06	11	5.7	88.24	55 48
18.36	1	57.6	86.51	51 49	18.03	3	59.7	86.94	54 58	17.79	3	1.6	87.36	4 42	17.19	3	3.5	87.77	51 54	16.13	8	5.7	88.24	2 21
17.60	3	57.7	86.52	3 15	18.07	3	59.7	86.95	53 59	17.70	3	1.6	87.36	55 52	14.44	14	3.5	87.78	58 43	12.47	17	5.7	88.25	1 41
17.50	3	57.7	86.53	52 40	15.23	10	59.7	86.95	2 34	18.44	1	1.6	87.37	57 48	16.11	9	3.5	87.78	57 25	16.20	8	5.7	88.25	2 50
17.58	3	57.7	86.53	53 19	17.69	3	59.7	86.96	2 56	18.36	1	1.6	87.37	56 07	16.49	8	3.5	87.78	4 25	16.63	7	5.7	88.25	3 41
17.48	2	57.8	86.54	3 55	18.65	2	59.7	86.96	56 38	17.57	3	1.7	87.38	54 11	18.44	1	3.6	87.80	52 55	17.13	3	5.7	88.25	51 33
18.36	1	57.8	86.55	53 35	17.99	3	59.8	86.97	2 04	16.48	8	1.7	87.38	50 41	17.61	3	3.6	87.80	53 33	17.40	3	5.7	88.26	58 09
14.65	12	57.9	86.56	3 50	18.14	2	59.8	86.97	0 23	18.21	3	1.7	87.38	53 07	18.32	3	3.6	87.81	55 23	14.34	12	5.8	88.27	50 11
14.74	12	57.9	86.57	54 58	16.56	7	59.8	86.97	3 49	16.48	8	1.7	87.38	52 33	18.44	1	3.6	87.81	56 45	17.74	3	5.8	88.28	59 38
16.43	6	58.0	86.58	56 20	18.04	3	59.8	86.97	51 01	18.18	3	1.7	87.39	0 38	16.68	7	3.7	87.82	53 48	18.36	1	5.8	88.28	3 12
16.89	3	58.0	86.59	50 45	16.96	3	59.7	86.98	55 46	17.26	3	1.7	87.39	2 51	16.05	8	3.7	87.83	0 07	18.36	1	5.9	88.29	51 37
15.42	10	58.0	86.59	59 46	18.02w	2	60	87.0	0 00	18.36	1	1.7	87.39	2 58	17.28	3	3.8	87.84	1 31	18.02w	2	6	88.3	1 48
18.38	2	58.1	86.60	53 22	16.81	7	59.9	87.00	59 52	16.74	5	1.7	87.39	51 28	17.79	3	3.8	87.84	55 09	14.86	10	5.9	88.30	52 48
17.84	3	58.1	86.61	54 13	17.53	3	59.9	87.00	58 15	16.80	4	1.8	87.40	52 18	18.50	2	3.8	87.85	1 20	18.54	2	6.0	88.32	56 16
18.05	3	58.1	86.61	58 05	17.91	3	60.0	87.02	51 42	18.07	3	1.8	87.40	58 02	15.81	9	3.9	87.87	4 30	16.93	6	6.1	88.34	58 26
18.18	3	58.2	86.63	54 04	15.86	9	60.0	87.02	52 18	17.62	3	1.8	87.41	55 44	17.88	3	3.9	87.87	3 27	18.36	1	6.1	88.34	2 59
17.63	3	58.2	86.63	50 37	17.86	2	60.0	87.03	55 45	15.62	9	1.8	87.41	0 56	17.98	3	3.9	87.87	59 07	18.46	2	6.1	88.34	52 12
18.21	3	58.3	86.65	56 07	17.53	3	60.0	87.03	2 08	13.32	16	1.8	87.41	52 58	17.62	2	3.9	87.87	52 49	16.57	8	6.1	88.34	51 56
17.57	3	58.3	86.65	0 10	17.00	3	60.1	87.04	3 39	18.44	1	2.0	87.44	56 16	17.36	3	4.0	87.89	50 17	17.87	3	6.2	88.36	53 12
17.76	3	58.4	86.66	1 56	14.94	12	60.1	87.04	55 13	18.01	3	2.0	87.45	2 17	17.10	3	4.0	87.89	54 15	16.60	8	6.2	88.36	55 01
15.47	10	58.4	86.66	55 41	18.42	2	60.1	87.05	53 07	17.54	1	2.0	87.45	0 07	14.97	12	4.1	87.90	59 45	18.65	2	6.2	88.36	0 40
17.82	2	58.4	86.67	58 26	16.52	7	60.1	87.05	0 19	17.08	5	2.0	87.45	57 35	15.13	11	4.1	87.91	59 22	17.16	3	6.3	88.38	55 30
17.06	3	58.4	86.67	51 13	18.13	3	60.2	87.06	57 00	17.61	2	2.0	87.46	56 34	16.81	7	4.1	87.91	1 10	16.59	8	6.3	88.38	55 56
18.20	1	58.4	86.67	3 11	17.82	3	60.2	87.06	59 19	17.56	3	2.0	87.46	55 31	17.08	3	4.2	87.92	51 22	16.54	7	6.3	88.38	58 11
16.20	8	58.4	86.67	4 22	18.65	2	60.2	87.07	56 02	16.86	3	2.0	87.46	50 07	18.36	1	4.2	87.93	54 09	17.76w	2	6	88.4	0 48
12.96	13	58.5	86.69	3 01	14.81	11	60.2	87.07	51 42	17.94	2	2.1	87.47	58 12	15.14	11	4.2	87.93	53 33	12.12	16	6.5	88.42	54 16
17.79w	2	58	86.7	1 30	18.54	2	60.3	87.08	57 31	16.64	5	2.1	87.48	58 47	16.63:	1	4.2	87.93	3 52	16.68	4	6.5	88.43	53 58
16.66	5	58.6	86.70	4 05	16.66	7	60.3	87.09	56 17	18.08	3	2.1	87.48	55 04	18.25	2	4.3	87.94	1 08	18.44	1	6.5	88.43	56 24
16.64	4	58.6	86.70	2 38	16.47	6	60.3	87.09	4 30	18.36	1	2.1	87.48	51 03	17.57	3	4.4	87.97	0 11	18.65	2	6.6	88.44	58 21
17.55	3	58.6	86.70	1 56	16.04	8	60.4	87.10	2 29	13.65	16	2.2	87.51	59 28	16.72	7	4.4	87.97	55 41	17.50	3	6.6	88.44	3 26
16.03	8	58.6	86.71	0 19	17.69	3	60.4	87.11	3 18	17.97	3	2.2	87.51	1 40	18.44	1	4.5	87.98	56 08	16.60	7	6.6	88.45	1 49
18.13	3	58.7	86.73	53 04	15.24	11	60.4	87.11	51 52	17.84	3	2.3	87.52	57 04	13.86	12	4.5	87.98	54 37	18.50	2	6.6	88.45	1 39
16.66	2	58.7	86.73	53 35	18.09	3	60.5	87.13	53 19	17.43	3	2.4	87.55	52 45	18.13	3	4.5	87.99	1 15	16.14	9	6.6	88.45	0 16
16.88	7	58.8	86.74	58 02	15.84	9	60.5	87.13	53 35	16.83	7	2.5	87.57	56 08	16.83	5	4.5	87.99	2 37	18.50	2	6.6	88.45	53 32
14.81	12	58.8	86.76	0 07	16.00	8	60.6	87.14	51 01	16.67	7	2.6	87.58	58 14	17.42	3	4.6	88.01	0 05	18.46	2	6.6	88.45	50 43
17.22	3	58.9	86.77	1 34	17.49	3	60.6	87.14	3 46	17.42	3	2.6	87.58	4 52	16.68	7	4.6	88.01	57 01	15.90	8	6.7	88.46	53 56
13.81	14	58.9	86.77	2 53	13.07	17	60.7	87.16	53 07	18.18	3	2.6	87.58	0 38	17.71	3	4.7	88.02	58 46	16.48	8	6.7	88.46	53 42
17.20	3	58.9	86.77	3 04	18.46	2	60.7	87.17	58 20	16.59	8	2.6	87.58	53 49	18.13	3	4.7	88.02	56 40	17.74	3	6.7	88.47	55 42
18.44	1	58.9	86.77	55 37	17.59	3	60.8	87.18	57 55	17.37	3	2.6	87.59	0 09	17.17	3	4.7	88.02	4 31	18.36	1	6.8	88.48	1 17
17.95w	2	59	86.8	50 30	16.22	8	60.8	87.18	57 49	15.91	9	2.7	87.60	58 30	18.44	1	4.7	88.03	55 55	17.57	3	6.9	88.50	4 49
17.49	3	59.0	86.81	53 26	17.53	3	60.8	87.19	58 01	17.75	3	2.8	87.62	0 24	16.74	7	4.7	88.03	56 35	18.44	1	6.9	88.50	58 16
18.06	3	59.1	86.82	0 56	17.80	2	60.8	87.19	55 26	15.72	9	2.8	87.62	1 06	18.36	1	4.8	88.04	3 23	16.49	8	6.9	88.51	59 05
17.87	3	59.1	86.82	2 03	17.93	3	60.8	87.19	53 26	17.48	3	2.8	87.62	2 06	17.49	3	4.8	88.05	2 03	18.20	2	6.9	88.51	54 33
17.80	3	59.2	86.85	59 07	16.83	3	60.9	87.20	53 00	17.62	3	2.8	87.63	3 13	13.41	17	4.8	88.05	58 43	17.45	3	6.9	88.51	50 57
17.98	3	59.2	86.85	50 01	17.97	3	60.9	87.20	4 23	17.98	3	2.9	87.64	0 39	17.94	3	4.8	88.05	54 10	16.92	3	7.0	88.52	54 12
15.83	9	59.2	86.85	0 18	18.09	3	60.9	87.21	2 27	17.77	3	2.9	87.64	57 01	17.02	3	4.8	88.05	54 00	13.35:	2	7.0	88.52	51 08
16.47	6	59.3	86.86	4 01	18.44	1	60.9	87.21	54 16	14.86	12	2.9	87.64	54 43	17.53	3	4.8	88.05	51 24	16.44	7	7.1	88.54	59 00
16.61	7	59.3	86.87	2 51	18.44	1	60.9	87.21	54 34	17.86	3	2.9	87.65	0 53	17.11	3	4.8	88.06	2 21	16.66	7	7.1	88.54	57 07
18.54	2	59.3	86.87	53 34	16.70	4	61.0	87.22	58 29	17.46	3	3.0	87.66	1 39	17.78	3	4.9	88.07	2 57	17.57	3	7.1	88.54	4 57
17.62	3	59.4	86.88	51 13	15.39	11	61.1	87.26	59 58	16.96	4	3.0	87.67	56 28	18.44	1	4.9	88.07	53 29	16.83	7	7.1	88.55	0 31
15.71	8	59.4	86.88	53 42	16.60	8	61.1	87.26	53 15	18.34	2	3.2	87.70	59 50	18.42	2	4.9	88.07	51 41	18.05	3	7.1	88.55	1 40
18.36	1	59.4	86.88	58 50	17.13	3	61.1	87.26	53 36	13.74	15	3.2	87.70	50 58	17.73	3	5.2	88.14	58 59	16.29	8	7.2	88.57	1 19
16.96	2	59.4	86.89	58 45	17.70	3	61.2	87.28	1 35	17.70	3	3.2	87.70	0 10	16.55	7	5.2	88.15	56 30	17.57	3	7.2	88.57	55 17
17.85w	2	59	86.9	50 18	16.75	6	61.3	87.30	0 35	17.58	2	3.3	87.72	53 43	18.28	1	5.3	88.16	4 37	16.64	8	7.2	88.57	53 31
18.36	1	59.5	86.90	1 13	15.99	9	61.3	87.31	58 37	18.32	3	3.3	87.73	55 59	14.47	13	5.3	88.17	50 10	18.32	3	7.2	88.57	53 02
17.93	3	59.5	86.91	3 45	16.46	8	61.3	87.31	51 24	17.61	3	3.4	87.74	55 35	17.72	3	5.4	88.18	57 32	17.76	3	7.2	88.58	4 40
17.57	3	59.6	86.92	58 33	17.37	3	61.4	87.32	54 12	18.01	3	3.4	87.74	2 34	14.96	10	5.4	88.18	55 09	18.65	2	7.3	88.59	58 39

25 prec. + 60.0s, + 4′ 5″

301—360				
Mag.		α 57^m	x	y+60′ y
		s	′	′ ″
18.36	1	7.3	88.60	3 40
16.85	7	7.3	88.61	56 43
16.28	8	7.3	88.61	56 10
17.85	3	7.4	88.63	51 35
17.28	3	7.5	88.65	56 21
15.28	9	7.5	88.65	4 37
18.24	3	7.6	88.66	56 05
17.59	3	7.6	88.67	2 10
17.67	3	7.7	88.68	2 20
18.21	3	7.7	88.68	56 52
18.11	2	7.7	88.68	54 12
17.95	3	7.8	88.70	3 49
15.76	9	7.8	88.70	3 01
17.90	3	7.8	88.70	1 58
18.07	2	7.9	88.73	53 05
17.48	3	8.0	88.74	52 28
16.27	8	8.0	88.75	58 56
17.13	3	8.1	88.77	4 36
15.30	9	8.2	88.78	1 37
17.83	3	8.2	88.78	2 33
17.82	3	8.2	88.79	4 59
16.92	5	8.3	88.80	1 23
16.75	3	8.3	88.81	50 48
18.52	1	8.4	88.82	54 19
18.13	3	8.4	88.82	51 40
17.69	3	8.4	88.82	3 39
18.04	3	8.4	88.83	56 05
18.52	1	8.5	88.85	56 25
16.85	7	8.5	88.85	57 00
16.81	5	8.5	88.85	2 01
16.71	6	8.5	88.85	52 48
16.72	7	8.5	88.85	54 09
18.52	1	8.5	88.86	53 19
17.47	3	8.5	88.86	59 15
16.31	8	8.6	88.87	4 10
16.66	4	8.6	88.87	54 15
17.51	3	8.6	88.88	55 27
18.44	1	8.7	88.89	59 42
17.82w	2	9	88.9	53 00
18.44	1	8.7	88.90	57 45
11.97	17	8.7	88.91	52 37
16.46	8	8.7	88.91	53 25
17.66	3	8.8	88.92	1 17
17.69	3	8.8	88.92	3 15
17.19	3	8.8	88.93	51 35
17.75	3	8.9	88.95	54 29
17.20	3	8.9	88.95	3 58
17.90	3	8.9	88.95	4 05
17.36	3	8.9	88.95	56 45
17.59	3	9.0	88.96	55 18
16.30	8	9.0	88.97	53 34
18.02	3	9.1	88.98	55 15
16.53	8	9.2	89.00	53 46
16.92	4	9.2	89.01	52 59
16.79	5	9.3	89.02	3 03
18.52	1	9.3	89.03	56 37
17.90	2	9.3	89.03	53 15
17.58	3	9.4	89.04	53 13
18.20	2	9.4	89.04	58 09
17.67	3	9.4	89.04	1 17

361—420				
Mag.		α 57^m	x	y+60′ y
		s	′	′ ″
17.28	3	9.4	89.04	3 57
16.79	7	9.4	89.05	54 33
17.01	3	9.4	89.06	53 10
17.93	3	9.4	89.06	58 33
17.00	6	9.5	89.07	58 18
17.74	3	9.5	89.07	53 40
17.66	3	9.5	89.07	53 34
17.32	3	9.5	89.07	4 57
18.04	3	9.5	89.07	3 51
17.91	3	9.5	89.08	50 00
15.18	11	9.5	89.08	50 24
13.14	18	9.6	89.09	2 56
18.16	2	9.6	89.11	51 54
16.57	8	9.6	89.11	52 21
18.52	1	9.7	89.13	58 23
17.58	2	9.8	89.15	57 28
18.18	3	9.8	89.15	2 19
18.26	2	9.9	89.17	55 26
12.55	17	10.0	89.18	54 09
18.19	3	10.0	89.19	58 07
18.29	3	10.0	89.19	57 40
16.89w	5	10	89.2	57 00
18.52	1	10.1	89.20	56 31
17.12	3	10.1	89.20	0 51
12.80	17	10.1	89.21	55 47
15.67	10	10.1	89.21	50 41
17.63	3	10.1	89.21	54 56
17.51	3	10.2	89.22	54 38
17.65	3	10.2	89.23	55 23
17.68	3	10.3	89.24	52 25
15.67	9	10.3	89.25	3 12
17.49	3	10.3	89.25	1 31
17.62	3	10.4	89.26	54 25
11.45w	16	10.5	89.28	56 54
16.37	8	10.5	89.28	55 59
16.72w	3	10	89.3	56 48
16.68	7	10.6	89.30	59 25
13.49	18	10.6	89.30	53 42
17.58	3	10.6	89.31	52 12
18.84	2	10.6	89.31	55 16
17.59	3	10.6	89.31	57 40
17.46	3	10.7	89.32	3 55
15.36	11	10.7	89.32	52 23
18.52	1	10.8	89.34	52 51
17.52	3	10.8	89.35	1 51
12.10	18	10.8	89.36	54 24
16.50	8	10.9	89.37	54 17
17.64	2	10.9	89.37	54 01
17.12	3	10.9	89.37	53 01
18.18	2	10.9	89.37	58 16
18.35	3	10.9	89.37	58 40
18.30	2	10.9	89.37	58 30
18.28	1	10.9	89.38	58 02
16.02	9	10.9	89.38	56 18
16.58	8	10.9	89.38	53 21
18.01	3	11.0	89.39	52 03
18.07	3	11.0	89.39	55 04
18.44	1	11.0	89.40	54 52
18.16	3	11.0	89.41	1 31
16.87	3	11.0	89.41	50 09

421—480				
Mag.		α 57^m	x	y+60′ y
		s	′	′ ″
16.41	3	11.0	89.41	50 34
17.71	3	11.1	89.43	54 06
17.17	3	11.2	89.45	51 25
17.90	3	11.2	89.45	57 39
17.22	3	11.3	89.46	50 08
16.85d	1	11.3	89.47	1 40
18.33	3	11.3	89.47	58 44
18.16	3	11.3	89.47	57 50
17.78	2	11.3	89.47	55 20
16.80	7	11.4	89.48	59 19
14.73	13	11.4	89.49	58 49
15.76	9	11.5	89.51	55 44
16.43	8	11.5	89.51	54 15
17.70	3	11.5	89.51	54 51
18.14	2	11.7	89.54	54 59
16.22	8	11.7	89.55	55 31
17.69	3	11.7	89.55	0 10
17.55	3	11.8	89.57	2 27
16.69	7	11.8	89.57	0 21
17.13	5	11.8	89.57	57 28
17.41	3	11.9	89.59	56 40
18.52	1	11.9	89.59	55 47
17.21	3	11.9	89.59	52 30
17.95	2	12.0	89.60	51 45
16.47	7	12.1	89.63	59 19
17.94	3	12.2	89.64	2 24
18.44	1	12.2	89.64	51 52
17.66	2	12.2	89.64	51 21
17.98	3	12.2	89.65	52 24
14.55	13	12.3	89.67	50 33
18.24	2	12.4	89.70	55 22
17.70	3	12.4	89.70	4 58
13.34	15	12.4	89.71	57 53
18.18	3	12.4	89.71	50 04
16.97	7	12.5	89.72	58 24
16.39	8	12.6	89.74	3 41
17.01	7	12.6	89.75	58 54
17.01	5	12.6	89.75	58 12
16.94	3	12.6	89.75	50 48
16.55	8	12.6	89.75	53 36
18.00	3	12.7	89.76	50 57
13.15	15	12.7	89.76	56 17
18.54	2	12.7	89.77	50 15
14.64	12	12.7	89.77	3 33
12.83:	2	12.8	89.78	55 43
16.41	7	12.8	89.78	56 33
14.99	10	12.8	89.79	53 44
15.55	9	12.9	89.81	54 32
17.57	3	12.9	89.81	58 00
16.84	7	13.0	89.83	59 49
18.13	3	13.0	89.83	1 24
16.06	8	13.0	89.83	55 27
18.02	3	13.1	89.84	59 33
17.42	3	13.1	89.84	59 11
17.99	2	13.1	89.84	53 11
17.84	3	13.1	89.85	58 19
17.66	3	13.1	89.86	58 05
17.98	3	13.1	89.86	50 11
18.24	2	13.2	89.87	53 00
18.54	2	13.2	89.87	51 57

481—540				
Mag.		α 57^m	x	y+60′ y
		s	′	′ ″
17.04	3	13.2	89.88	50 24
15.11	10	13.2	89.88	55 48
18.50	2	13.2	89.88	3 52
17.78	3	13.2	89.88	3 45
17.84w	2	13	89.9	2 24
16.95	7	13.3	89.91	59 33
16.10	8	13.3	89.91	50 35
18.61	1	13.4	89.92	55 19
14.98	12	13.4	89.92	2 02
18.16	2	13.4	89.93	51 13
17.20	3	13.4	89.93	50 41
16.82	7	13.5	89.94	57 15
17.16	5	13.6	89.96	58 27
17.56	3	13.6	89.96	52 42
16.74	5	13.6	89.97	52 15
15.68	10	13.6	89.97	52 07
17.82	2	13.6	89.97	55 01
17.20	3	13.6	89.97	4 36
15.44	11	13.7	89.98	2 18
18.61	1	13.7	89.98	55 21
15.92	9	13.7	89.98	54 04
18.52	1	13.7	89.99	57 16
16.94	6	13.7	89.99	58 01
17.64w	2	14	90.0	4 48
14.49	14	13.8	90.00	59 23
18.34	2	13.8	90.00	4 41
18.16	3	13.9	90.02	59 42
17.07	7	14.0	90.05	58 57
17.67	3	14.0	90.05	58 53
16.66	5	14.0	90.05	50 02
18.69	2	14.1	90.06	51 50
17.94	3	14.1	90.06	4 26
18.02	3	14.1	90.07	3 58
17.42	3	14.1	90.07	4 20
17.07	7	14.1	90.07	56 39
17.42	3	14.1	90.07	54 42
16.68	8	14.1	90.07	55 30
14.48	13	14.2	90.08	3 39
18.52	1	14.2	90.09	57 26
18.09	3	14.2	90.09	56 32
18.30	2	14.2	90.09	53 27
16.86	7	14.3	90.10	57 08
18.24	2	14.4	90.12	58 03
18.37	3	14.5	90.14	57 41
18.61	1	14.5	90.15	56 06
16.53	8	14.5	90.15	53 41
17.52	2	14.5	90.16	3 54
15.56	9	14.6	90.17	52 52
16.43	8	14.6	90.18	54 00
18.00	3	14.7	90.19	57 08
17.96	2	14.7	90.19	55 49
18.52	1	14.7	90.21	59 49
13.61	16	14.9	90.24	2 23
17.28	3	14.9	90.24	53 44
15.88	7	15.0	90.27	3 02
17.78	3	15.2	90.31	50 42
16.58	8	15.2	90.31	52 26
18.34	2	15.2	90.32	54 48
18.52	1	15.4	90.34	56 05
17.91	3	15.4	90.34	2 55

541—600				
Mag.		α 57^m	x	y+60′ y
		s	′	′ ″
16.21	8	15.4	90.34	4 35
18.26	2	15.4	90.35	55 03
17.58	2	15.4	90.35	50 36
17.77	3	15.4	90.36	50 40
17.13	3	15.5	90.37	3 45
17.38	3	15.5	90.38	53 59
15.24	10	15.5	90.38	53 13
16.79	7	15.6	90.39	52 22
17.40	3	15.6	90.39	59 50
17.63	2	15.6	90.41	53 44
14.25	14	15.6	90.41	51 12
15.12	11	15.8	90.44	52 18
18.52	1	15.8	90.45	53 21
16.26	8	15.8	90.45	59 49
18.36	3	15.9	90.47	58 57
14.75	12	15.9	90.47	4 47
17.45	3	15.9	90.47	2 14
16.69	7	16.1	90.50	1 31
18.52	1	16.1	90.50	58 36
18.22	2	16.1	90.50	54 52
16.74	5	16.1	90.50	52 00
17.66	3	16.2	90.52	51 55
18.36	1	16.2	90.53	3 43
17.73	3	16.3	90.54	1 01
17.97	3	16.3	90.55	58 19
16.76	3	16.5	90.59	50 44
15.27	10	16.6	90.60	3 54
15.60	9	16.6	90.61	0 08
18.52	1	16.7	90.62	52 10
17.71	3	16.7	90.62	57 17
16.25	8	16.7	90.63	54 44
17.99	2	16.9	90.67	53 03
17.02	7	16.9	90.67	56 31
16.58	7	16.9	90.68	4 00
17.03	3	16.9	90.68	52 10
17.99	2	16.9	90.68	51 07
17.77	3	17.0	90.71	51 40
17.39	3	17.0	90.71	4 42
17.05	3	17.0	90.71	2 53
17.19	3	17.1	90.72	55 59
17.54:	1	17.1	90.72	51 07
17.58	3	17.3	90.76	50 27
16.71	7	17.3	90.76	57 24
17.33	3	17.3	90.76	53 45
17.25	3	17.3	90.77	54 01
17.83	3	17.3	90.77	53 31
16.87	7	17.4	90.78	0 28
16.22	8	17.4	90.78	0 51
17.70	1	17.4	90.78	3 00
17.86	3	17.4	90.79	3 39
18.13	3	17.4	90.79	50 40
18.44	1	17.5	90.81	52 41
18.52	1	17.5	90.81	59 25
17.66	3	17.6	90.83	3 37
18.52	1	17.6	90.83	52 29
17.78	3	17.6	90.83	59 28
18.30	2	17.7	90.84	55 57
17.53	3	17.7	90.84	50 01
16.66	8	17.7	90.85	51 54
16.45	7	17.7	90.85	58 31

25 prec. + 60′.0, + 4′ 6″

601—660				661—720				721—780				781—840				841—900			
Mag.	α 57^{m}	x	y+60′ y	Mag.	α 57^{m}	x	y+60′ y	Mag.	α 57^{m}	x	y+60′ y	Mag.	α 57^{m}	x	y+60′ y	Mag.	α 57^{m}	x	y+60′ y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
18.44 2	17.7	90.85	57 00	18.44 1	20.2	91.39	51 05	17.32 3	23.0	92.00	54 27	17.99 3	25.7	92.57	53 21	18.48 2	28.1	93.08	54 38
18.20 3	17.8	90.86	59 47	18.69 1	20.4	91.42	56 34	15.75 10	23.1	92.01	50 03	17.41 3	25.6	92.57	59 51	18.48 2	28.1	93.09	54 42
17.68 3	17.8	90.86	0 59	18.52 1	20.4	91.43	1 03	18.36 1	23.1	92.03	4 36	17.73 3	25.7	92.58	57 47	18.44 2	28.1	93.09	58 52
17.63 3	17.8	90.87	56 01	13.84: 2	20.5	91.45	57 58	17.97 3	23.1	92.03	0 20	18.44 1	25.7	92.59	0 15	18.69 2	28.2	93.11	50 41
18.24 2	17.9	90.89	52 11	17.39 3	20.6	91.48	0 37	15.41 10	23.2	92.04	57 20	15.04 10	25.8	92.61	58 40	16.79 8	28.2	93.12	0 25
15.89 7	18.0	90.90	59 54	18.32 3	20.6	91.48	50 30	17.70 3	23.2	92.05	59 23	17.48 3	26.0	92.63	54 58	18.48 2	28.4	93.15	53 21
16.03 9	18.0	90.90	56 17	16.60 8	20.6	91.48	51 01	18.69 2	23.2	92.05	1 09	15.08 11	26.0	92.63	54 22	17.94 2	28.5	93.16	50 48
15.58 9	18.0	90.90	51 48	17.57 3	20.8	91.52	58 20	17.77 3	23.3	92.06	56 41	18.44 1	26.1	92.65	50 03	17.11 5	28.5	93.16	53 10
14.49: 2	18.0	90.91	54 12	15.70 10	20.9	91.54	3 07	16.93 7	23.3	92.07	58 20	18.60 2	26.1	92.66	55 45	15.64 9	28.4	93.17	57 31
17.70 3	18.1	90.93	53 27	18.48 2	20.9	91.55	55 47	16.81 7	23.3	92.07	0 59	17.36 3	26.1	92.67	3 34	17.11 3	28.6	93.19	52 09
16.30 8	18.1	90.93	3 14	17.02 3	21.0	91.57	55 42	17.85 3	23.5	92.10	57 38	16.12 9	26.2	92.68	53 33	17.87 3	28.5	93.19	0 54
17.62 3	18.2	90.95	2 20	16.85 7	21.0	91.57	2 52	18.22 3	23.5	92.10	56 39	17.44 3	26.2	92.69	3 36	16.92 3	28.7	93.20	51 30
18.03 3	18.2	90.95	3 59	17.07 3	21.0	91.57	51 34	17.24 5	23.5	92.11	56 58	18.54 2	26.3	92.70	56 57	17.42 2	28.7	93.21	50 21
18.44 2	18.2	90.95	57 06	16.52 8	21.2	91.60	52 47	16.65 8	23.8	92.14	52 47	14.94 11	26.3	92.70	51 56	17.96 2	28.7	93.21	52 39
15.43 10	18.2	90.96	4 52	17.09 6	21.2	91.60	57 52	16.62 4	23.8	92.16	54 21	18.36 1	26.3	92.71	4 44	18.78 1	28.6	93.21	56 27
15.79 9	18.3	90.97	0 30	16.36 7	21.2	91.61	57 47	15.58 9	23.8	92.16	0 06	15.19 11	26.5	92.74	56 24	16.32 8	28.6	93.21	3 32
14.54 13	18.3	90.97	56 42	18.16 3	21.2	91.61	2 56	15.94 7	23.9	92.18	3 04	17.26 5	26.5	92.75	0 06	18.12 3	28.7	93.22	0 34
16.82 8	18.3	90.97	54 02	17.84 3	21.3	91.62	59 11	17.82 3	24.0	92.20	53 22	16.70 7	26.5	92.75	0 57	16.93 8	28.7	93.23	57 08
17.00 3	18.3	90.98	53 57	17.35 3	21.3	91.62	59 03	17.19 3	24.0	92.20	51 27	17.99 3	26.5	92.75	4 09	16.50 8	28.8	93.24	56 48
18.32 2	18.3	90.98	57 21	18.26 3	21.4	91.65	56 22	17.66 3	24.0	92.21	51 56	18.30 2	26.5	92.75	54 55	16.99 3	28.9	93.25	50 02
15.23 11	18.4	90.99	55 01	17.24 3	21.4	91.65	54 31	16.23 9	24.1	92.22	0 06	18.54 2	26.5	92.76	3 10	18.60 2	29.0	93.27	54 45
18.69 2	18.4	91.01	59 59	17.92 3	21.5	91.67	54 03	16.60 8	24.1	92.22	0 38	18.26 3	26.5	92.76	56 37	18.69 1	28.9	93.27	57 22
18.69 2	18.4	91.01	51 23	16.67 8	21.5	91.67	52 02	17.26 3	24.1	92.23	4 47	16.74 8	26.5	92.76	58 28	16.66 7	28.9	93.27	0 42
16.34 8	18.5	91.03	2 31	18.16 2	21.5	91.67	53 20	18.84 2	24.2	92.25	52 28	18.18 2	26.6	92.77	58 53	18.38 2	29.1	93.29	54 26
16.60 6	18.5	91.03	2 49	17.78 2	21.5	91.67	2 01	17.66 2	24.4	92.28	51 21	17.80 3	26.6	92.79	4 25	17.38 3	29.0	93.30	0 55
16.70 8	18.6	91.04	59 20	17.63 3	21.6	91.69	1 25	17.36 3	24.4	92.28	53 10	17.20 4	26.7	92.80	59 50	18.00 2	29.0	93.31	56 39
17.42 3	18.6	91.04	57 14	14.63 12	21.7	91.70	0 41	18.18 2	24.5	92.31	54 47	17.57 3	26.9	92.83	50 09	18.01 3	29.1	93.33	3 40
17.13 3	18.7	91.06	55 12	18.02 1	21.7	91.71	1 20	18.01 3	24.5	92.31	55 26	18.54 2	26.9	92.84	56 10	16.51 8	29.2	93.33	51 39
17.45 3	18.7	91.07	55 44	18.17 3	21.7	91.71	0 07	16.17 8	24.6	92.32	50 08	18.18 2	26.9	92.84	4 57	18.58 2	29.2	93.34	55 30
16.90 8	18.7	91.07	56 09	18.69 1	21.7	91.71	55 03	17.00 3	24.6	92.33	52 35	14.91 12	26.9	92.85	2 04	16.12 9	29.2	93.34	59 21
18.26 3	18.7	91.07	0 13	15.24 10	21.7	91.71	52 41	17.74 3	24.7	92.35	52 46	17.03 6	26.9	92.85	57 48	16.23 8	29.3	93.35	51 11
17.02 7	18.8	91.09	56 35	13.37 17	21.9	91.75	58 14	18.60 2	24.6	92.35	56 12	16.43 8	27.0	92.86	1 33	18.36 2	29.4	93.36	53 50
17.52 3	18.9	91.10	55 06	17.68 3	21.9	91.76	50 37	17.38 5	24.6	92.35	56 40	17.57 3	27.0	92.87	3 55	18.24 2	29.3	93.36	0 42
18.44 2	18.9	91.11	57 31	12.55 17	22.0	91.77	53 09	15.38 11	24.7	92.37	3 27	18.36 1	27.0	92.87	4 44	17.71 3	29.4	93.37	53 51
17.70 3	19.0	91.13	50 49	18.48 2	22.1	91.81	57 20	18.30 2	24.8	92.37	54 57	18.22 2	27.0	92.87	59 37	18.18 3	29.4	93.37	53 05
18.65 2	19.1	91.14	2 12	12.86 16	22.1	91.81	3 52	17.38 3	24.8	92.38	4 02	18.32 3	27.1	92.88	2 32	17.02 3	29.4	93.37	52 17
18.61 1	19.1	91.15	57 51	15.52 11	22.1	91.81	2 58	16.44 8	24.9	92.38	53 49	16.40 8	27.2	92.89	50 55	14.37 13	29.3	93.37	59 08
18.69 2	19.1	91.15	53 55	17.78 3	22.2	91.83	56 30	17.92 2	24.9	92.39	52 06	17.72 2	27.3	92.91	51 20	18.69 1	29.5	93.38	53 21
17.61 3	19.1	91.15	53 57	17.53 3	22.3	91.84	53 26	18.88 2	24.9	92.39	51 54	18.02 3	27.2	92.91	2 23	18.69 2	29.6	93.40	51 16
18.13 3	19.1	91.16	0 01	14.83 12	22.3	91.85	51 28	16.67 7	24.8	92.39	3 46	16.42 8	27.2	92.91	4 07	16.34 8	29.6	93.40	51 09
16.11 8	19.2	91.17	3 01	17.62 3	22.4	91.86	1 00	16.97 7	24.9	92.40	58 49	17.34 2	27.3	92.92	0 13	18.15 3	29.5	93.40	59 18
18.44 3	19.2	91.17	56 14	15.59 8	22.4	91.86	56 00	17.07 3	25.0	92.41	52 25	17.94 3	27.4	92.95	4 49	16.93 7	29.6	93.40	54 52
17.11 3	19.2	91.18	58 07	17.79 3	22.4	91.87	57 39	16.30 7	25.0	92.43	59 51	17.93 3	27.4	92.95	4 09	17.99 2	29.6	93.41	51 37
16.99 7	19.3	91.20	57 01	18.10 3	22.4	91.87	50 45	17.82 3	25.0	92.43	2 10	18.53 2	27.4	92.95	59 02	17.01 6	29.6	93.42	55 11
18.16 2	19.3	91.21	51 03	18.11 3	22.5	91.88	51 37	12.26: 1	25.1	92.44	4 40	17.91 3	27.5	92.96	58 10	14.57 14	29.6	93.42	58 18
17.41 3	19.3	91.21	0 26	17.40 3	22.5	91.88	54 29	17.99 2	25.2	92.45	51 00	18.34 2	27.5	92.97	59 52	15.93 9	29.6	93.43	3 32
16.49 7	19.6	91.26	57 24	17.13 3	22.5	91.89	54 51	18.26 2	25.2	92.46	54 51	16.89 7	27.5	92.97	1 13	18.39 2	29.6	93.43	0 03
18.04 2	19.6	91.26	54 42	17.95 3	22.5	91.89	55 31	18.69 1	25.1	92.46	57 02	18.69 1	27.6	92.98	57 24	13.71 14	29.7	93.44	1 23
18.34 2	19.6	91.26	53 36	17.00 7	22.6	91.90	58 57	18.30 2	25.2	92.47	55 54	17.50 3	27.6	92.99	2 41	18.54 2	29.7	93.44	57 10
18.12 2	19.6	91.26	53 14	18.65 2	22.7	91.92	50 40	18.48 2	25.3	92.47	54 41	17.51 3	27.7	92.99	51 13	17.94 2	29.9	93.47	53 41
17.53 3	19.9	91.32	59 16	17.29 3	22.7	91.93	1 20	14.24 14	25.2	92.48	1 13	17.94w 2	28	93.0	50 54	17.74 3	29.9	93.48	51 33
18.11 2	19.9	91.33	56 20	17.95 3	22.8	91.94	4 51	18.32 2	25.3	92.49	55 45	12.32 15	27.7	93.01	50 31	16.28 6	29.9	93.48	52 36
17.87 3	20.0	91.35	59 37	16.38 7	22.8	91.94	57 53	16.70: 1	25.4	92.52	4 49	14.65 14	27.7	93.01	4 12	15.81 9	29.9	93.49	58 18
17.69 3	20.0	91.35	55 38	17.49 4	22.8	91.95	56 37	16.70 7	25.5	92.54	2 21	16.67 7	27.8	93.03	2 48	15.86 10	30.0	93.50	50 37
18.04 3	20.0	91.35	1 14	17.77 3	22.8	91.95	57 13	15.80 9	25.6	92.55	52 22	16.82 7	27.8	93.03	1 35	13.00 17	30.0	93.50	0 58
17.76 3	20.1	91.36	57 43	18.00 3	22.8	91.96	5 00	17.56 3	25.7	92.56	51 20	17.98 3	27.8	93.03	57 07	14.79 11	30.2	93.54	51 50
18.48 2	20.1	91.37	55 49	14.50 14	22.9	91.97	2 07	16.97 3	25.7	92.56	53 01	16.53 8	27.9	93.05	2 37	16.79 7	30.2	93.56	2 32
17.69 3	20.1	91.37	56 52	18.88 2	22.9	91.98	59 07	16.60 7	25.6	92.56	57 03	14.94 12	27.9	93.06	0 18	16.32 8	30.3	93.57	55 33
17.61 3	20.2	91.38	2 12	15.82 9	22.9	91.98	53 42	15.11 12	25.6	92.57	56 47	17.87 3	28.0	93.07	52 31	17.92 2	30.3	93.57	53 14
15.82 9	20.2	91.39	57 07	17.80 3	23.0	91.99	57 21	15.81: 9	25.6	92.57	57 32	18.48 2	28.1	93.08	53 54	18.07 2	30.3	93.58	0 19

25 prec. + $60^{s}0$, + 4′ 6″

901—960					961—1020					1021—1080					1081—1140					1141—1200				
Mag.		α 57^{m}	x	$y+60'$ / y	Mag.		α 57^{m}	x	$y+60'$ / y	Mag.		α 57^{m}	x	$y+60'$ / y	Mag.		α 57^{m}	x	$y+60'$ / y	Mag.		α 57^{m}	x	$y+60'$ / y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
17.84	3	30.4	93.61	55 32	16.85	3	33.3	94.20	52 29	16.59	8	35.5	94.69	50 10	17.74	3	37.8	95.21	4 30	18.44	1	40.1	95.70	3 07
18.43	2	30.5	93.61	53 52	18.09	2	33.2	94.21	55 30	17.59	3	35.5	94.71	0 40	17.63	3	37.8	95.21	4 33	17.74	3	40.1	95.71	3 29
18.34	2	30.5	93.61	52 57	18.02	3	33.3	94.22	57 26	16.46	8	35.7	94.75	58 27	15.85	10	38.0	95.23	50 24	15.76	10	40.1	95.71	1 39
17.08	5	30.6	93.63	52 37	16.70	7	33.3	94.22	4 40	17.40	3	35.7	94.75	59 30	17.30	2	38.1	95.24	53 37	17.71	3	40.2	95.72	3 33
18.42	2	30.6	93.64	4 40	17.71	3	33.4	94.23	53 15	17.66	2	35.8	94.75	51 36	17.00	7	38.1	95.24	54 14	18.52	1	40.4	95.74	52 51
17.35	3	30.6	93.65	3 27	17.96	2	33.5	94.24	51 45	18.39	2	35.8	94.75	53 54	17.80	2	38.1	95.25	54 03	17.84	3	40.4	95.74	51 55
18.10	3	30.6	93.65	57 48	18.20	3	33.4	94.25	0 25	17.38	3	35.8	94.76	4 54	17.94	2	38.1	95.25	51 29	17.58	3	40.4	95.74	50 16
18.44	1	30.6	93.65	57 49	16.38	8	33.5	94.27	3 28	17.85	3	35.9	94.77	50 03	18.46	2	38.0	95.25	3 00	18.44	2	40.4	95.76	54 31
17.59	3	30.7	93.67	57 48	17.72	3	33.5	94.27	57 13	18.48	2	35.9	94.77	54 01	17.86	3	38.1	95.26	52 42	16.35	8	40.4	95.76	53 34
16.92	5	30.7	93.67	3 07	16.35	8	33.6	94.27	50 20	17.79	3	35.9	94.78	58 54	18.51	3	38.1	95.26	56 05	17.33	3	40.4	95.77	0 20
17.27	3	30.9	93.68	54 40	17.28	3	33.7	94.29	51 59	17.89	3	36.0	94.81	59 51	16.36	8	38.2	95.27	51 38	17.38	3	40.5	95.78	52 36
15.93	10	30.9	93.68	50 16	17.00	3	33.7	94.30	5 00	18.69	1	36.0	94.81	53 45	18.35	3	38.1	95.27	0 21	18.61	1	40.5	95.78	58 14
17.66	3	30.9	93.69	50 41	17.54:	1	33.7	94.30	2 17	17.85	3	36.0	94.81	50 44	17.79	3	38.2	95.28	3 10	16.39	8	40.6	95.80	59 26
18.29	3	30.8	93.69	0 46	17.32	3	33.7	94.31	2 48	18.34	2	36.1	94.82	52 27	18.22	2	38.2	95.29	56 09	17.97	3	40.6	95.80	4 31
17.30	3	30.8	93.69	55 38	15.97	8	33.7	94.31	59 32	17.88	3	36.1	94.82	2 18	17.24	3	38.4	95.33	4 03	15.38	10	40.6	95.81	2 24
15.67	9	30.9	93.70	2 35	18.64	2	33.8	94.32	57 09	18.61	1	36.1	94.83	59 31	17.21	3	38.4	95.33	51 04	17.68	3	40.6	95.81	2 41
17.45	3	30.9	93.71	59 39	18.56	2	33.8	94.32	58 15	16.62	8	36.2	94.84	51 52	17.94	2	38.5	95.34	54 05	18.11	1	40.6	95.81	3 05
16.40	8	31.0	93.72	1 11	18.61	1	33.8	94.32	53 12	15.91	8	36.2	94.84	4 55	18.22	2	38.5	95.35	51 09	18.48	2	40.8	95.85	57 15
16.11	8	31.1	93.75	2 40	17.75	3	33.9	94.34	3 04	18.65	2	36.2	94.85	2 10	15.92	4	38.5	95.35	53 12	15.66	9	40.9	95.86	57 34
18.02	1	31.2	93.76	55 29	18.58	2	33.9	94.35	50 31	18.44	1	36.2	94.86	2 50	17.80	3	38.5	95.35	58 40	18.84	2	40.9	95.86	1 20
15.52	11	31.2	93.77	2 44	16.03	9	34.0	94.36	52 27	16.68	7	36.2	94.86	4 49	17.85	3	38.6	95.37	58 17	17.68	3	40.9	95.86	3 57
18.47	2	31.3	93.78	57 29	13.09	17	34.0	94.37	51 44	17.07	6	36.2	94.86	55 11	17.73	3	38.6	95.37	53 26	18.69	2	40.9	95.87	50 54
17.95	3	31.3	93.79	58 00	17.85	3	34.0	94.37	57 31	18.45	2	36.4	94.90	56 14	18.11	3	38.6	95.37	4 17	17.91	3	40.9	95.87	51 17
18.23	3	31.4	93.79	50 39	18.08	2	34.0	94.38	55 41	18.14	2	36.5	94.92	0 35	18.36	1	38.6	95.37	4 48	18.69	1	41.0	95.88	56 20
17.24w	2	32	93.8	56 54	14.82	11	34.0	94.38	55 14	16.23	8	36.6	94.94	3 04	13.38	18	38.6	95.37	0 33	18.61	1	41.0	95.88	58 57
17.54	3	31.4	93.80	0 55	15.64	8	34.0	94.38	2 45	14.30	14	36.6	94.94	58 44	15.68	7	38.6	95.38	3 07	17.22	2	41.0	95.88	3 04
17.02	3	31.5	93.82	1 12	17.51	2	34.1	94.39	50 51	17.31	3	36.8	94.96	51 58	18.13	3	38.6	95.38	59 49	16.08	8	41.1	95.90	1 49
17.05	3	31.5	93.83	55 21	18.36	3	34.2	94.42	0 37	17.20	6	36.7	94.97	57 54	18.44	1	38.7	95.39	3 14	17.99	2	41.1	95.90	52 17
8.31w	6	31.5	93.83	56 28	17.85	3	34.3	94.44	58 41	16.21	8	36.7	94.97	1 01	16.45	8	38.7	95.40	2 04	17.97	3	41.1	95.91	59 38
18.05	3	31.6	93.84	57 33	17.46	2	34.4	94.44	53 13	17.36	3	36.9	94.98	50 05	16.78	6	38.7	95.41	1 05	16.71	8	41.2	95.93	52 52
18.00	3	31.6	93.84	4 09	18.52	1	34.4	94.45	50 37	17.67	3	36.9	94.98	52 59	17.89	3	38.8	95.43	4 28	17.77	1	41.3	95.94	3 11
18.23	3	31.7	93.87	3 09	17.24	3	34.4	94.45	53 29	18.54	2	36.9	94.98	54 07	15.62	8	38.9	95.44	0 38	17.87	3	41.3	95.95	1 10
16.90	5	31.7	93.87	50 32	16.79	7	34.4	94.46	52 57	18.21	3	36.9	94.99	50 46	15.41	10	39.0	95.45	51 43	18.44	2	41.3	95.95	56 41
18.48	2	31.8	93.91	58 32	17.04	3	34.5	94.47	53 28	18.43	2	36.9	94.99	54 24	12.38	17	38.9	95.45	57 39	13.43	15	41.4	95.96	50 04
16.94	5	31.8	93.91	57 07	16.86	8	34.4	94.47	55 10	18.06	2	36.8	94.99	58 47	13.29	18	39.0	95.46	0 11	18.24	2	41.4	95.97	51 42
14.38	14	32.0	93.94	59 31	18.78	1	34.5	94.47	54 48	18.11	1	37.0	95.00	51 44	14.91	10	39.1	95.46	54 44	18.69	1	41.4	95.97	56 34
15.56	8	32.0	93.95	59 21	17.06	3	34.5	94.48	50 02	18.23	3	36.9	95.00	0 50	17.57	3	39.1	95.46	53 24	16.58	6	41.5	95.99	50 40
16.70	7	32.1	93.97	1 57	17.86	3	34.7	94.53	52 35	18.24	2	36.9	95.01	1 30	17.21	3	39.1	95.46	50 57	18.16	2	41.6	96.00	51 32
14.76	13	32.2	93.97	51 57	14.29	14	34.8	94.54	57 58	17.78	2	36.9	95.01	56 47	17.08	3	39.1	95.46	52 26	17.84	2	41.6	96.01	54 57
17.19	3	32.2	93.98	56 47	18.60	2	34.8	94.55	54 41	17.90	3	37.0	95.02	2 03	18.01	3	39.0	95.47	57 44	17.63	2	41.5	96.01	3 30
18.60	2	32.3	94.00	56 02	18.33	2	34.9	94.56	56 04	17.37	3	37.0	95.02	1 16	18.48	2	39.1	95.48	56 16	17.42	3	41.8	96.06	57 56
17.25	3	32.3	94.00	55 41	16.42	9	34.9	94.57	55 52	14.42	14	37.0	95.03	59 58	18.44	2	39.1	95.49	58 22	18.52	1	41.8	96.06	51 45
17.20	3	32.3	94.00	53 14	16.70	8	34.9	94.57	51 11	18.78	1	37.1	95.05	55 01	17.70	3	39.2	95.50	0 49	17.69	3	41.9	96.07	51 57
16.51	5	32.3	94.01	2 47	18.04	3	34.9	94.57	52 03	18.64	2	37.2	95.07	55 42	18.39	2	39.2	95.51	59 29	18.65	2	41.9	96.07	51 20
16.17	7	32.5	94.04	57 22	17.94	3	34.9	94.57	0 27	17.93	3	37.3	95.08	51 17	16.28	8	39.2	95.51	55 48	18.52	1	41.9	96.07	51 02
17.08	3	32.5	94.04	54 13	16.32	8	35.0	94.58	58 35	17.48	2	37.3	95.09	57 26	14.59	13	39.2	95.51	56 46	17.97	3	41.8	96.07	1 17
16.24	6	32.5	94.05	3 44	15.22	10	35.1	94.60	56 58	14.29	13	37.3	95.09	3 27	16.45	8	39.3	95.51	53 08	18.08	3	41.9	96.09	56 39
17.47	3	32.5	94.06	59 36	16.67	8	35.1	94.60	58 17	16.61	8	37.4	95.10	59 30	17.54	3	39.4	95.52	51 23	18.52	1	42.0	96.09	51 35
16.78	6	32.6	94.07	52 04	18.18	3	35.1	94.60	53 01	17.59	3	37.4	95.11	1 59	17.29	3	39.4	95.54	3 04	17.73	2	42.0	96.11	54 38
16.81	7	32.7	94.08	52 33	17.84	2	35.1	94.61	52 41	18.65	2	37.5	95.12	50 41	15.85	8	39.6	95.57	50 45	16.20	8	42.1	96.12	52 07
18.04	3	32.6	94.08	4 50	17.50	3	35.1	94.61	4 29	18.36	1	37.5	95.13	2 07	18.48	2	39.5	95.57	57 58	18.44	2	42.1	96.12	58 36
18.24	2	32.7	94.10	0 11	18.88	2	35.2	94.62	52 44	17.26	3	37.6	95.16	4 51	16.75	8	39.6	95.58	57 05	14.38	13	42.2	96.14	59 34
16.70	8	32.7	94.11	0 50	14.62	9	35.2	94.63	54 48	17.42	3	37.6	95.16	55 15	18.52	1	39.6	95.58	51 23	17.61	3	42.2	96.14	0 38
17.60	3	32.8	94.12	4 30	17.71	3	35.2	94.63	56 22	18.64	2	37.6	95.16	56 24	16.28	6	39.6	95.58	2 05	17.68	3	42.2	96.14	55 00
18.18	3	32.9	94.14	3 51	18.52	1	35.3	94.64	0 55	18.26	2	37.7	95.17	57 37	15.69	9	39.7	95.60	51 02	16.01	9	42.2	96.14	4 52
16.21	8	33.0	94.15	53 34	18.78	1	35.3	94.65	55 34	18.08	2	37.7	95.17	59 07	17.96	3	39.9	95.65	58 18	15.64	9	42.3	96.16	52 22
14.50	14	32.9	94.15	57 59	18.64	2	35.4	94.67	56 14	17.72	3	37.7	95.18	58 11	16.79	8	39.9	95.65	55 01	16.95	7	42.2	96.16	56 20
17.29	3	33.0	94.16	57 49	16.66	8	35.4	94.67	51 33	17.61	3	37.7	95.18	0 16	17.69	3	40.0	95.67	4 45	17.61	3	42.3	96.17	58 21
16.82	6	33.1	94.18	55 31	18.18	3	35.4	94.68	58 30	17.78	2	37.8	95.19	2 19	18.36	1	40.0	95.68	3 09	17.86	1	42.4	96.18	53 36
16.86	4	33.1	94.18	2 47	13.26	17	35.4	94.68	3 24	17.68	3	37.8	95.20	59 11	18.48	2	40.1	95.69	57 29	18.16	2	42.4	96.19	53 03

25 prec. + $60^{s}.0$, + 4′ 6″

1201—1260				1261—1320				1321—1380				1381—1440				1441—1500			
Mag.	α 57^m	x	$\frac{y+60'}{y}$	Mag.	α 57^m	x	$\frac{y+60'}{y}$	Mag.	α 57^m	x	$\frac{y+60'}{y}$	Mag.	α 57^m	x	$\frac{y+60'}{y}$	Mag.	α 57^m	x	$\frac{y+60'}{y}$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
18.69 1	42.4	96.19	56 59	16.60w 7	45	96.8	51 54	17.53 3	47.4	97.28	57 04	17.63 3	49.7	97.78	56 55	18.42 2	52.2	98.32	0 44
17.40 3	42.4	96.21	58 57	16.75 7	45.2	96.80	52 52	16.56 8	47.5	97.29	56 42	17.49 3	49.8	97.80	4 46	16.29 8	52.3	98.34	2 10
17.70 1	42.5	96.21	50 06	18.84 2	45.2	96.80	0 29	18.10 3	47.5	97.30	1 37	17.76 3	49.9	97.80	50 20	17.06 3	52.4	98.34	54 09
15.96 8	42.5	96.22	3 21	16.13 8	45.2	96.80	57 51	14.03 10	47.5	97.30	3 57	18.52 1	49.9	97.82	59 27	18.52 1	52.3	98.35	58 35
18.61 1	42.6	96.23	53 12	15.59 9	45.2	96.81	52 25	16.08 8	47.5	97.31	58 35	16.41 8	49.9	97.82	3 23	17.85 3	52.3	98.35	0 32
16.46 8	42.6	96.24	4 14	13.58 16	45.4	96.85	51 32	16.86 3	47.6	97.31	53 38	17.70 2	50.1	97.86	2 17	14.26 14	52.4	98.37	59 57
17.21 3	42.7	96.26	4 41	16.49 8	45.4	96.85	56 23	16.66 5	47.7	97.33	51 41	16.30 8	50.1	97.86	52 04	13.35 18	52.5	98.38	2 31
16.64 8	42.8	96.27	54 21	17.68 3	45.5	96.87	57 59	15.89 9	47.8	97.34	54 01	14.64 11	50.2	97.87	51 28	18.44 1	52.5	98.38	51 41
17.71 3	42.8	96.28	51 38	10.43w 10	45.5	96.87	4 37	18.34 2	47.9	97.38	54 41	17.26 3	50.1	97.87	58 46	17.42 3	52.6	98.40	52 06
18.30 2	42.8	96.28	57 46	18.05 3	45.5	96.87	3 25	18.07 3	48.0	97.40	50 59	17.79 3	50.1	97.87	4 57	18.19 3	52.6	98.40	56 09
18.30 2	42.9	96.30	59 29	17.55 3	45.6	96.88	1 16	13.42 17	48.0	97.40	58 08	17.38 3	50.2	97.88	54 42	17.36 3	52.6	98.40	2 59
15.47 9	42.9	96.30	3 17	17.66w 2	46	96.9	3 42	18.04 2	48.1	97.42	2 50	16.72 8	50.3	97.90	55 29	17.51 3	52.7	98.43	3 11
17.25 3	42.9	96.30	2 49	17.18 3	45.7	96.90	51 11	17.69 3	48.1	97.42	1 43	18.36 1	50.3	97.90	3 59	17.59 3	52.8	98.44	53 07
13.85 13	42.9	96.31	52 58	18.54 2	45.7	96.90	50 04	17.63 3	48.1	97.43	56 16	13.03: 16	50.3	97.91	55 58	17.86 2	52.8	98.45	57 19
17.17 5	43.0	96.33	56 32	18.61 1	45.7	96.91	55 56	16.75 5	48.2	97.45	4 13	16.41 8	50.3	97.91	52 53	18.54 2	52.9	98.46	0 45
17.68 3	43.0	96.33	4 05	18.30 2	45.7	96.91	55 13	17.59 3	48.2	97.45	50 06	18.20 3	50.4	97.92	55 16	17.42 3	52.9	98.46	4 26
14.60 13	43.2	96.36	51 56	15.50 9	45.8	96.93	3 34	15.48 9	48.2	97.46	58 16	17.71 3	50.5	97.95	1 10	16.60 8	52.9	98.47	56 48
16.30 8	43.4	96.40	50 55	16.51 7	45.9	96.94	3 44	17.46 3	48.3	97.47	59 40	16.77 7	50.5	97.95	1 36	18.52 1	52.9	98.47	57 07
17.29 3	43.4	96.41	51 47	18.20 2	45.9	96.95	52 21	18.13 3	48.3	97.47	52 02	18.52 1	50.6	97.96	58 07	18.20 2	52.9	98.47	55 08
18.30 2	43.4	96.41	59 42	17.99 3	45.9	96.95	52 53	18.34 2	48.4	97.48	53 54	13.29 17	50.6	97.96	55 37	18.03 3	53.1	98.50	50 10
17.50 3	43.4	96.41	59 01	17.94 3	45.9	96.95	58 16	16.52 8	48.4	97.50	59 32	17.60 3	50.6	97.96	50 04	17.75 3	53.1	98.51	59 59
18.44 2	43.5	96.42	54 24	14.32 13	45.9	96.96	4 39	15.29 11	48.4	97.51	59 22	15.70 8	50.7	97.99	51 42	17.60 2	53.2	98.53	52 31
16.79 5	43.5	96.42	50 47	17.65 3	46.0	96.97	50 00	16.57 8	48.5	97.51	50 27	16.78 7	50.7	97.99	52 45	17.52 3	53.3	98.54	53 03
16.53 8	43.5	96.43	50 39	16.34 7	46.0	96.97	54 39	17.97 3	48.5	97.51	51 27	17.70 2	50.7	97.99	4 28	16.43 6	53.3	98.54	56 03
18.48 2	43.6	96.44	55 01	17.64 3	46.0	96.97	58 05	18.44 1	48.6	97.52	51 20	15.09 12	50.8	98.00	3 01	15.99 8	53.3	98.54	0 15
14.82 12	43.6	96.44	56 33	17.27 3	46.1	96.98	54 33	18.07 3	48.5	97.52	57 28	17.86: 1	50.9	98.02	0 33	17.48 2	53.3	98.55	55 50
15.65 6	43.6	96.45	0 46	16.14 8	46.1	96.99	0 48	17.53 3	48.5	97.52	3 18	17.78 2	50.9	98.03	54 24	17.62: 1	53.3	98.55	57 56
14.66 13	43.7	96.47	0 11	16.04 8	46.2	97.02	1 02	18.04 3	48.5	97.52	3 25	17.38 3	51.0	98.04	52 10	18.54 2	53.3	98.56	59 15
15.89 8	43.7	96.47	2 38	18.36 1	46.2	97.02	4 09	16.95 5	48.6	97.53	1 44	17.92 2	51.0	98.05	53 31	18.28 1	53.3	98.56	58 44
18.34 2	43.8	96.48	54 16	14.97 11	46.3	97.02	51 43	18.02 3	48.6	97.54	3 52	18.08 3	51.0	98.05	3 50	15.97 9	53.4	98.57	54 17
17.82 3	43.8	96.48	50 58	13.30 18	46.3	97.03	54 03	16.86 8	48.6	97.54	55 44	16.34 8	51.1	98.07	3 54	17.39 2	53.4	98.58	51 25
18.30 2	43.8	96.50	59 40	16.83 7	46.3	97.04	59 41	17.59 3	48.6	97.54	55 26	16.81 8	51.1	98.07	58 29	18.11 3	53.5	98.59	58 01
18.88 2	44.0	96.54	52 16	16.43 6	46.3	97.04	55 38	17.05 5	48.7	97.55	1 34	16.53: 5	51.1	98.07	53 50	17.62 3	53.5	98.59	2 28
17.53 3	44.0	96.54	53 40	18.27 3	46.4	97.06	59 08	14.81: 2	48.7	97.56	2 25	17.02 3	51.2	98.10	52 23	18.52 1	53.5	98.61	53 36
16.13 8	44.0	96.54	4 27	17.59 3	46.4	97.06	50 21	14.92 12	48.7	97.56	58 53	18.27 3	51.2	98.10	58 07	18.26 2	53.5	98.61	58 01
17.96 2	44.1	96.57	54 27	18.44 1	46.4	97.06	1 41	18.30 2	48.7	97.56	58 42	16.22 8	51.3	98.12	56 02	16.43 8	53.6	98.62	53 04
17.74 2	44.1	96.57	55 38	18.16 3	46.5	97.07	53 46	17.97 3	48.8	97.57	51 33	18.63 2	51.3	98.13	57 30	18.84 2	53.6	98.63	54 51
17.75 3	44.3	96.60	58 22	17.72 3	46.5	97.08	4 20	17.75 3	48.8	97.59	1 50	16.90 7	51.4	98.15	58 43	17.82 3	53.6	98.63	55 30
18.32 2	44.3	96.61	55 19	18.39 2	46.5	97.09	58 04	16.42 8	48.9	97.61	56 52	18.14 2	51.5	98.16	59 02	16.72 8	53.6	98.63	58 17
17.64 3	44.3	96.61	57 26	18.61 1	46.6	97.09	53 20	16.26 7	49.0	97.63	2 19	13.12 17	51.5	98.16	56 15	16.50 6	53.6	98.63	2 56
18.13 3	44.3	96.61	53 28	16.34 8	46.6	97.11	51 46	18.14 2	49.1	97.64	4 37	16.01 8	51.5	98.17	54 11	18.84 2	53.7	98.65	56 41
16.57 8	44.3	96.61	0 03	16.76 7	46.6	97.11	1 01	18.16 2	49.1	97.64	58 49	17.16 5	51.6	98.18	53 33	18.23 3	53.9	98.68	59 20
18.09 3	44.4	96.63	58 49	18.32 2	46.7	97.12	55 56	17.59 3	49.1	97.65	57 24	18.36 1	51.6	98.18	4 28	18.44 1	53.9	98.68	59 47
17.02 7	44.5	96.65	55 09	18.69 2	46.8	97.14	0 55	18.16 3	49.2	97.66	1 52	15.97 6	51.6	98.19	3 44	18.09 3	53.9	98.68	50 55
18.38 2	44.5	96.65	55 12	17.35 3	46.8	97.15	55 13	18.02 3	49.2	97.67	0 01	17.79 3	51.6	98.19	1 04	18.34 2	53.9	98.68	2 10
18.39 2	44.6	96.67	54 35	17.82 3	46.8	97.15	57 57	13.88 14	49.2	97.67	3 33	16.50 8	51.7	98.20	3 02	18.52 1	53.9	98.69	56 01
11.08 16	44.7	96.68	53 14	17.78 3	46.9	97.17	3 20	15.50 8	49.2	97.67	3 07	14.57 14	51.7	98.21	52 10	17.62 3	53.9	98.69	52 00
17.99 3	44.7	96.69	1 55	15.71 8	46.9	97.17	58 28	18.29 3	49.2	97.67	53 39	16.58 7	51.7	98.21	53 16	17.48 3	54.0	98.71	57 19
15.50 10	44.7	96.69	1 25	18.14 2	47.0	97.18	59 00	17.62 1	49.2	97.67	53 47	17.96 2	51.7	98.21	56 25	17.15 3	54.1	98.72	51 06
17.71 3	44.8	96.70	53 29	17.84 3	47.0	97.18	52 19	16.08 8	49.2	97.67	51 08	18.52 1	51.8	98.22	55 30	16.44 8	54.1	98.72	0 43
16.54 8	44.8	96.71	0 14	17.42 3	47.0	97.19	57 35	18.44 1	49.3	97.68	50 44	11.84 11	51.8	98.23	2 32	18.20 1	54.2	98.74	2 12
17.62: 1	44.8	96.71	59 04	18.40 3	47.1	97.21	58 49	18.61 1	49.3	97.68	57 01	17.25 3	51.9	98.24	58 51	18.08 2	54.2	98.74	56 58
17.61 3	44.9	96.72	57 06	18.44 1	47.2	97.22	55 17	16.35 8	49.3	97.68	59 16	15.90 9	51.9	98.25	55 22	18.52 1	54.2	98.75	55 53
18.61 1	44.9	96.73	58 15	17.61 3	47.2	97.22	4 22	18.69 2	49.4	97.70	51 17	17.39 3	52.0	98.26	50 02	17.42 3	54.2	98.75	50 20
18.48 2	45.0	96.75	56 27	17.87 3	47.2	97.22	1 17	18.29 2	49.5	97.72	56 31	17.54 3	51.9	98.26	1 10	18.10 3	54.2	98.75	2 33
16.50 8	45.0	96.76	50 46	17.87 3	47.3	97.25	4 09	16.59 6	49.5	97.73	1 42	16.87 3	52.0	98.27	53 34	16.75 5	54.2	98.75	3 59
12.97 16	45.0	96.76	54 01	18.09 2	47.4	97.26	53 46	16.98 5	49.7	97.77	1 34	18.21 3	52.1	98.28	50 30	16.42 8	54.2	98.75	2 56
17.76 3	45.0	96.76	3 06	18.34 2	47.3	97.26	56 58	16.58 8	49.7	97.77	51 56	17.44w 2	52	98.3	0 18	18.01 2	54.5	98.80	56 04
17.82 3	45.1	96.78	4 12	16.86 3	47.4	97.27	50 57	18.54 2	49.7	97.77	50 46	17.08 3	52.2	98.30	54 31	17.08 3	54.5	98.81	4 19
18.65 2	45.2	96.79	50 12	17.53 3	47.4	97.28	57 41	17.04 3	49.8	97.78	51 01	17.61 3	52.1	98.30	4 40	17.77 1	54.6	98.82	55 26

25 prec. $+ 60\overset{s}{.}0, + 4' 7''$

1501—1560					1561—1620					1621—1680					1681—1740				
Mag.		α 57^m	x	$y+60'$ / y	Mag.		α 57^m	x	$y+60'$ / y	Mag.		α 58^m	x	$y+60'$ / y	Mag.		α 58^m	x	$y+60'$ / y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
16.68	8	54.6	98.82	51 41	16.64	4	56.8	99.31	4 59	16.60	8	0.0	0.00	56 55	18.44	1	3.5	0.77	57 28
17.98	3	54.7	98.84	50 20	17.90	3	56.9	99.32	56 40	18.54	2	0.1	0.03	53 21	17.67	3	3.5	0.77	58 56
18.16	2	54.7	98.84	57 30	17.94	3	57.0	99.34	55 15	16.66	8	0.2	0.04	54 16	17.62	3	3.7	0.81	56 46
17.99	3	54.7	98.85	58 29	17.20	3	57.0	99.36	59 39	15.34	11	0.2	0.04	58 45	17.21	3	3.7	0.81	57 17
17.62	3	54.7	98.85	57 16	18.54	2	57.1	99.37	59 54	17.58	3	0.2	0.04	3 13	17.54	3	3.7	0.81	4 17
17.00	5	54.7	98.86	56 55	17.61	3	57.2	99.39	3 12	17.13	3	0.2	0.05	56 15	16.39	8	3.9	0.84	56 16
17.92	3	54.8	98.87	4 04	18.50	2	57.3	99.43	1 38	18.42	2	0.3	0.06	59 28	14.21	14	3.9	0.85	58 42
17.12	3	54.8	98.87	2 42	17.72	3	57.4	99.44	1 03	15.92	8	0.3	0.06	52 48	17.58	3	3.9	0.85	1 23
16.69	8	54.8	98.87	54 31	17.74	3	57.4	99.44	55 35	18.65	2	0.3	0.07	54 21	17.41	3	4.0	0.86	56 02
16.18	8	54.8	98.88	51 14	18.04	3	57.4	99.45	2 56	16.26	6	0.3	0.07	2 36	18.08	3	3.9	0.86	51 32
18.44	1	54.9	98.89	50 54	16.53	8	57.5	99.46	57 39	18.44	1	0.4	0.09	52 10	17.68	3	4.2	0.90	4 51
17.60	3	54.9	98.89	4 17	17.70	2	57.5	99.46	50 37	18.03	3	0.5	0.11	52 05	17.72	3	4.5	0.97	2 15
15.05	11	54.9	98.90	4 22	17.53	3	57.6	99.48	4 53	16.34	8	0.5	0.11	57 38	16.49	8	4.5	0.97	59 49
18.24	2	54.9	98.90	55 01	16.45	8	57.6	99.49	0 11	17.84	2	0.7	0.15	2 36	18.54	2	4.5	0.97	57 57
17.71	3	54.9	98.90	58 03	16.44	8	57.7	99.50	52 11	17.63	3	0.7	0.15	51 49	17.96	3	4.6	1.00	50 11
14.76	13	54.9	98.91	59 50	17.61	3	57.7	99.51	4 24	14.92	12	0.8	0.17	51 34	18.09	3	4.6	1.01	1 46
18.54	2	54.9	98.91	1 32	16.53	8	57.8	99.52	51 37	16.29	8	0.8	0.17	55 45	18.30	2	4.7	1.02	2 52
16.14	8	55.1	98.94	1 49	16.63	8	57.9	99.54	55 56	17.28	3	0.8	0.17	57 57	17.61	3	4.7	1.02	57 40
17.92	3	55.1	98.95	1 59	17.64	3	58.0	99.56	1 56	16.87	7	0.8	0.18	55 31	18.34	2	4.7	1.03	1 43
16.45	8	55.1	98.95	1 01	18.72	2	58.0	99.57	57 31	17.54	3	0.9	0.21	2 14	17.58	2	4.8	1.04	56 23
17.44	3	55.2	98.97	2 21	18.69	2	58.1	99.58	54 47	15.88	8	1.0	0.23	3 58	16.21	9	4.8	1.05	2 33
17.65	3	55.2	98.97	56 41	17.95	2	58.1	99.58	53 21	12.71	13	1.0	0.23	50 56	17.70	2	4.9	1.07	58 30
15.74	9	55.2	98.97	50 32	18.44	1	58.1	99.58	52 42	17.89	3	1.1	0.25	51 30	16.47	8	4.9	1.07	59 31
16.21	8	55.4	99.00	52 26	18.44	1	58.1	99.58	51 06	16.87	5	1.1	0.25	52 00	16.13	8	5.1	1.10	1 35
16.72	7	55.4	99.00	53 09	18.11	3	58.1	99.58	50 43	17.71	3	1.2	0.26	56 37	17.24	3	5.2	1.13	54 31
17.72	3	55.4	99.00	1 56	15.55	9	58.2	99.60	52 21	16.37	8	1.2	0.26	0 55	18.18	3	5.3	1.14	54 54
17.84	3	55.4	99.00	0 41	18.28	1	58.2	99.61	4 53	11.44	11	1.2	0.27	4 47	17.46	3	5.3	1.15	52 46
17.95	3	55.4	99.01	57 15	16.74	7	58.3	99.62	2 39	16.75	5	1.3	0.28	56 09	17.61	3	5.3	1.15	58 21
17.03	3	55.4	99.01	51 34	17.84	3	58.3	99.63	54 23	17.55	3	1.6	0.34	55 56	16.40	7	5.3	1.15	4 04
17.58	3	55.5	99.03	4 41	16.49	8	58.4	99.64	59 59	16.96	3	1.7	0.37	55 13	18.09	3	5.4	1.17	0 52
17.70	3	55.6	99.06	4 39	17.50	3	58.4	99.66	56 18	16.76	6	1.7	0.37	58 03	15.97	6	5.4	1.17	4 53
17.36	2	55.6	99.06	57 38	14.92	11	58.6	99.69	53 08	16.71	7	1.7	0.37	59 52	17.14	3	5.4	1.17	52 35
18.52	1	55.7	99.07	53 46	18.44	1	58.6	99.70	52 39	17.42	3	1.8	0.40	2 29	16.57	8	5.5	1.21	59 43
18.65	2	55.8	99.09	55 46	15.29	10	58.6	99.70	55 21	18.50	2	1.8	0.41	56 04	16.64	8	5.6	1.23	55 39
16.58	7	55.8	99.09	57 35	14.26	14	58.6	99.71	58 53	18.36	1	2.0	0.44	3 42	15.94	8	5.7	1.24	55 55
15.86	9	55.8	99.09	54 37	17.87	3	58.7	99.73	59 22	17.51	3	2.0	0.44	2 56	17.93	3	5.7	1.25	3 18
18.42	2	55.9	99.10	52 56	17.54	3	59.0	99.79	59 39	17.27	3	2.0	0.45	2 33	17.25	3	5.8	1.26	3 45
17.85	3	55.8	99.10	59 54	17.78	3	59.0	99.79	50 26	18.44	1	2.0	0.45	56 28	18.11	1	5.9	1.28	58 00
14.52	13	55.8	99.10	59 36	17.55	3	59.0	99.79	0 24	16.15	8	2.0	0.45	56 53	17.28	3	5.9	1.29	2 17
17.64	2	55.9	99.12	2 14	18.05	3	59.1	99.81	57 08	18.54	2	2.1	0.47	57 44	17.71w	2	6	1.3	4 42
17.28	2	55.9	99.12	57 50	17.98	3	59.2	99.82	3 41	16.68	8	2.2	0.48	53 05	16.01	8	6.0	1.30	58 59
14.49	13	55.9	99.13	57 28	18.11	1	59.2	99.83	57 24	16.04	9	2.2	0.49	53 00	16.43	8	6.0	1.31	59 27
16.74	7	56.1	99.16	55 13	17.03	3	59.3	99.85	50 06	17.58	3	2.3	0.50	2 49	18.44	1	6.1	1.32	56 24
17.37	3	56.1	99.16	57 36	18.36	1	59.3	99.86	0 54	18.44	1	2.4	0.52	52 25	17.87	3	6.1	1.32	52 35
17.70	3	56.1	99.16	1 54	16.30	8	59.4	99.87	1 34	17.86	3	2.5	0.55	59 35	17.93	3	6.2	1.35	3 49
18.07	2	56.2	99.17	0 22	14.62	12	59.4	99.87	50 59	16.43	7	2.6	0.56	4 01	17.29	3	6.2	1.35	3 41
15.74	10	56.3	99.19	54 38	17.54	3	59.4	99.88	2 52	16.86	5	2.6	0.56	0 14	17.48	3	6.3	1.37	4 11
18.08	2	56.3	99.21	54 34	18.54	2	59.4	99.88	59 59	14.11	13	2.6	0.57	51 17	17.33	3	6.3	1.37	3 17
16.96	3	56.4	99.22	1 06	18.46	2	59.5	99.91	52 39	15.89	8	2.8	0.61	51 43	17.64	3	6.3	1.37	4 00
17.42	3	56.4	99.22	50 03	15.70	10	59.6	99.92	59 25	17.07	3	2.8	0.61	51 29	16.28	8	6.4	1.38	0 45
15.86	8	56.5	99.24	2 18	16.85	5	59.6	99.92	58 15	17.74	2	3.0	0.65	59 28	17.71	3	6.4	1.39	56 59
16.96	7	56.5	99.24	58 00	18.36	1	59.7	99.94	57 37	17.38	3	3.0	0.65	59 25	18.44	1	6.4	1.39	56 24
17.85	3	56.5	99.25	52 35	17.74	2	59.7	99.95	54 08	18.42	2	3.0	0.66	52 39	17.91	3	6.5	1.40	53 35
18.21	3	56.6	99.26	51 59	18.44	1	59.8	99.96	51 54	18.54	2	3.0	0.66	54 59	17.46	3	6.5	1.41	56 55
17.28	3	56.6	99.26	55 54	18.54	2	59.8	99.96	58 51	18.44	1	3.1	0.67	52 16	17.96	3	6.7	1.45	51 14
17.78	3	56.6	99.27	58 11	18.65	2	59.8	99.97	59 03	17.48	2	3.1	0.68	56 17	17.71	3	6.7	1.46	52 10
14.37	14	56.8	99.30	58 18	17.38	3	59.8	99.97	50 22	17.73	3	3.2	0.71	55 53	17.98	3	6.8	1.49	2 13
18.13	3	56.8	99.30	53 48	18.11	3	59.8	99.97	0 40	16.46	8	3.2	0.71	57 47	16.39	8	6.8	1.49	2 41
17.45	3	56.8	99.30	0 55	14.14	14	59.8	99.97	2 23	18.54	2	3.3	0.73	53 25	15.20	9	6.9	1.50	0 41
16.93	5	56.8	99.30	2 10	15.79	6	59.8	99.97	4 49	17.98	3	3.5	0.76	57 01	18.16	3	6.9	1.50	53 58

1s—60s				
Mag.		α 56^{m}	x	$y+60'$ / y
		s	′	′
17.00	2	39	82.4	56.1
17.38	2	39	82.4	56.2
16.29	7	39	82.4	56.6
17.64	2	39	82.4	56.9
16.24	7	39	82.4	57.1
17.48	2	39	82.4	58.0
16.90	2	40	82.6	54.9
17.46	2	40	82.6	55.0
14.84	10	40	82.6	55.2
16.70	2	40	82.6	55.6
17.42	2	40	82.6	55.7
17.56	2	40	82.6	56.6
17.58	2	40	82.6	57.2
17.44	2	40	82.6	58.4
15.55	7	40	82.6	58.6
17.46	2	40	82.7	55.4
17.71	2	40	82.7	56.4
17.04	2	40	82.7	56.6
15.17	8	40	82.8	54.7
17.53	2	41	82.8	55.4
16.76	2	41	82.8	56.3
16.31	7	41	82.8	57.0
17.53	2	41	82.8	58.8
17.60	2	41	82.9	54.6
16.08	7	41	82.9	54.7
16.44	6	41	82.9	55.4
17.48	2	41	82.9	55.9
17.48	2	41	82.9	56.0
17.43	2	41	82.9	56.1
17.54	2	41	82.9	58.2
17 64	2	41	82.9	59.2
16.02	5	41	82.9	59.5
15.15	9	42	83.0	53.3
16.73	2	42	83.0	53.6
17.47	2	42	83.0	54.0
14.18	10	42	83.0	54.4
17.17	2	42	83.0	55.0
15.89	7	41	83.0	55.1
17.67	2	42	83.0	56.0
17.33	2	42	83.0	56.8
15.39	7	41	83.0	58.4
17.60	2	42	83.1	53.9
16.45	6	42	83.1	59.1
17.53	2	42	83.1	59.6
17.68	2	42	83.2	52.3
17.46	2	43	83.2	53.4
17.76	2	42	83.2	54.0
14.22	9	43	83.2	55.0
17.68	2	42	83.2	56.3
16.13	7	43	83.2	56.5
17.46	2	42	83.2	56.8
15.64	7	42	83.2	57.0
16.54	6	42	83.2	57.8
17.76	2	42	83.2	58.8
17.64	2	43	83.2	59.8
16.34	7	42	83.2	0.1
16.34	7	43	83.3	53.3
16.14	7	43	83.3	55.0
17.64	2	43	83.3	57.5
16.29	4	43	83.3	57.6

61s—120s				
Mag.		α 56^{m}	x	$y+60'$ / y
		s	′	′
17.36	2	43	83.3	0.3
15.87	7	43	83.4	52.0
16.24	7	43	83.4	54.2
16.98	2	44	83.4	54.4
16.46	5	43	83.4	56.1
15.80	7	43	83.4	56.4
17.68	2	44	83.4	56.6
16.48	6	44	83.4	56.8
17.41	2	44	83.4	57.6
17.64	2	43	83.4	57.7
17.76	2	43	83.4	57.8
17.02	2	43	83.4	59.1
16.42	7	43	83.4	59.4
17.42	2	44	83.4	0.8
17.26	2	44	83.5	53.8
17.76	2	44	83.5	54.2
16.25	7	44	83.5	54.6
17.41	2	44	83.5	57.4
16.04	7	44	83.5	1.2
17.41	2	44	83.6	51.6
17.58	2	44	83.6	51.7
17.39	2	44	83.6	51.8
17.71	2	44	83.6	52.6
17.68	2	44	83.6	52.8
16.04	7	44	83.6	53.6
16.40	7	44	83.6	53.8
17.76	2	44	83.6	54.4
16.37	7	44	83.6	54.6
·13.86	11	44	83.6	55.2
17.41	2	44	83.6	55.6
17.68	2	44	83.6	55.7
17.71	2	44	83.6	56.2
15.53	7	44	83.6	56.3
14.66	10	44	83.6	57.4
16.34	5	44	83.6	57.7
13.31	13	44	83.6	58.0
17.10	2	44	83.6	59.1
17.31	2	44	83.6	59.2
16.26	7	44	83.6	59.4
17.71	2	44	83.6	0.4
13.64	13	45	83.7	54.4
17.39	2	45	83.7	55.6
16.66	3	45	83.7	59.4
17.68	2	45	83.8	52.8
16.32	7	45	83.8	53.5
16.36	5	45	83.8	53.8
16.64	2	45	83.8	54.0
17.64	2	45	83.8	55.1
17.71	2	45	83.8	56.6
17.71	2	45	83.8	57.5
14.86	10	45	83.8	57.6
16.96	2	45	83.8	58.6
17.18	2	45	83.8	0.2
16.25	7	45	83.8	0.6
16.45	6	45	83.8	1.1
17.64	2	45	83.8	1.4
17.68	2	46	83.9	51.6
17.23	2	46	83.9	52.2
17.71	2	46	83.9	55.1
17.48	2	46	83.9	55.2

121s—180s				
Mag.		α 56^{m}	x	$y+60'$ / y
		s	′	′
15.87	7	46	83.9	55.5
17.68	2	46	83.9	55.6
16.29	7	46	83.9	57.6
17.22	2	46	83.9	57.7
17.76	2	46	84.0	51.3
16.37	7	46	84.0	52.4
16.94	2	46	84.0	53.1
17.85	2	46	84.0	54.5
17.38	2	46	84.0	55.1
16.63	4	46	84.0	56.2
16.27	7	46	84.0	56.4
17.08	2	46	84.0	57.3
16.48	5	46	84.0	57.8
17.85	2	46	84.0	57.9
17.28	2	46	84.0	1.0
16.41	7	46	84.0	1.1
16.53	3	46	84.0	2.0
17.76	2	47	84.1	51.8
17.71	2	47	84.1	52.4
17.68	2	47	84.1	53.2
15.34	8	47	84.1	54.6
17.35	2	47	84.1	57.0
17.09	2	47	84.1	58.8
17.76	2	47	84.1	59.5
17.68	2	47	84.1	59.9
16.27	7	47	84.1	0.0
17.10	2	47	84.1	0.8
17.10	2	47	84.1	1.9
16.54	4	47	84.1	2.0
17.41	2	47	84.2	51.4
17.66	2	47	84.2	51.9
17.19	2	47	84.2	53.4
15.73	7	47	84.2	55.5
17.76	2	47	84.2	55.6
17.35	2	47	84.2	57.4
16.45	6	47	84.2	57.6
17.76	2	47	84.2	57.8
17.79	2	47	84.2	58.1
17.71	2	47	84.2	58.4
15.69	7	47	84.2	59.0
17.37	2	47	84.2	59.6
17.60	2	47	84.2	0.1
16.36	5	47	84.2	1.3
17.64	2	47	84.2	2.3
17.52	2	47	84.2	2.4
17.82	2	48	84.3	55.0
17.02	2	48	84.3	55.4
15.73	7	48	84.4	51.0
17.53	2	48	84.4	51.6
17.76	2	48	84.4	54.2
17.64	2	48	84.4	54.3
17.26	2	48	84.4	54.5
17.79	2	48	84.4	54.6
15.61	7	48	84.4	55.8
17.08	2	48	84.4	56.8
15.05	10	48	84.4	58.2
16.44	6	48	84.4	58.7
16.36	7	48	84.4	58.8
17.46	2	48	84.4	59.1
15.85	7	48	84.4	0.2

181s—240s				
Mag.		α 56^{m}	x	$y+60'$ / y
		s	′	′
14.64	10	48	84.4	1.3
15.51	7	48	84.4	2.9
16.19	7	48	84.5	52.2
17.22	2	48	84.5	53.4
17.88	2	48	84.5	54.9
17.70	2	48	84.5	57.0
16.30	7	48	84.5	57.4
16.76	4	48	84.5	58.2
17.62	2	49	84.6	50.7
18.44	2	49	84.6	51.1
17.71	2	49	84.6	52.1
17.82	2	49	84.6	54.0
17.20	2	49	84.6	54.1
17.29	2	49	84.6	54.2
15.55	7	49	84.6	54.4
17.95	2	49	84.6	55.4
17.58	2	49	84.6	56.0
13.52	14	49	84.6	56.4
17.74	2	49	84.6	56.5
15.58	8	49	84.6	56.6
16.08	7	49	84.6	58.0
17.85	2	49	84.6	59.6
17.85	2	49	84.6	59.8
16.09	7	49	84.6	0.3
17.37	2	49	84.6	0.4
17.40	2	49	84.6	0.9
16.44	6	49	84.6	2.2
15.90	7	49	84.6	3.0
17.60	2	49	84.7	50.4
16.40	7	49	84.7	52.4
13.81	12	49	84.7	53.5
14.72	9	49	84.7	55.7
17.74	2	49	84.7	57.1
17.88	2	49	84.7	57.5
16.56	6	49	84.7	58.1
17.79	2	49	84.7	59.2
17.85	2	49	84.7	0.2
16.31	7	49	84.7	0.3
16.33	7	49	84.7	0.4
16.37	3	49	84.7	1.2
17.66	2	49	84.7	1.4
17.56	2	50	84.8	49.6
16.34	7	50	84.8	50.0
17.31	2	50	84.8	50.5
17.71	2	50	84.8	51.4
17.85	2	50	84.8	52.8
17.04	2	50	84.8	54.2
16.13	7	50	84.8	55.3
17.44	2	50	84.8	57.0
17.11	2	50	84.8	58.6
16.55	6	50	84.8	0.2
17.68	2	50	84.8	1.6
13.26	13	50	84.8	2.8
17.60	2	50	84.9	50.3
17.68	2	50	84.9	50.6
16.78	2	50	84.9	50.7
17.46	2	50	84.9	50.8
17.54	2	50	84.9	50.9
16.54	4	50	84.9	52.0
17.37	2	50	84.9	52.1

241s—300s				
Mag.		α 56^{m}	x	$y+60'$ / y
		s	′	′
16.42	7	50	84.9	52.4
16.47	7	50	84.9	53.4
17.85	2	50	84.9	54.6
16.37	7	50	84.9	55.1
17.88	2	50	84.9	55.4
16.85	4	50	84.9	55.9
15.04	9	50	84.9	56.2
17.56	2	50	84.9	56.4
10.52	12	50	84.9	56.9
17.61	2	50	84.9	57.5
17.44	2	50	84.9	57.9
15.83	7	50	84.9	59.4
17.79	2	50	84.9	59.8
17.68	2	50	84.9	1.4
17.68	2	51	85.0	49.6
17.68	2	51	85.0	49.7
16.98	2	51	85.0	50.5
17.85	2	51	85.0	51.6
17.85	2	51	85.0	51.8
16.29	7	51	85.0	55.2
16.19	7	51	85.0	56.0
17.46	2	51	85.0	56.4
17.20	2	51	85.0	58.0
16.59	6	51	85.0	58.8
15.54	8	51	85.0	0.0
17.71	2	51	85.0	1.7
17.71	2	51	85.0	2.0
15.38	7	51	85.0	3.4
17.02	2	51	85.1	50.1
16.79	2	51	85.1	51.0
12.87	15	51	85.1	51.8
17.08	2	51	85.1	52.2
16.27	7	51	85.1	54.1
17.95	2	51	85.1	54.2
17.32	2	51	85.1	54.9
16.24	7	51	85.1	55.0
17.43	2	51	85.1	55.1
17.88	2	51	85.1	57.0
17.64	2	51	85.1	58.2
17.30	2	51	85.1	58.9
17.60	2	51	85.1	2.1
17.71	2	51	85.1	2.6
17.54	2	51	85.1	3.4
15.51	7	51	85.1	3.5
16.30	7	51	85.1	3.7
16.23	7	52	85.2	49.8
16.32	7	52	85.2	54.4
15.28	9	51	85.2	54.6
17.88	2	52	85.2	54.8
16.36	7	52	85.2	55.6
16.12	7	52	85.2	56.2
17.56	2	52	85.2	56.6
16.74:	4	51	85.2	56.8
17.19	2	52	85.2	56.9
17.26	2	52	85.2	58.5
16.60	3	52	85.2	1.2
17.79	2	52	85.2	2.0
17.12	2	51	85.2	3.2
15.70	7	52	85.2	3.5
17.58	2	52	85.2	3.6

25 prec. + $60^{s}.0$, + 4′ 5″

301*s*—360*s*					361*s*—420*s*					421*s*—480*s*					481*s*—540*s*					541*s*—600*s*				
Mag.		α 56^m	x	$y+60'$ y	Mag.		α 56^m	x	$y+60'$ y	Mag.		α 56^m	x	$y+60'$ y	Mag.		α 57^m	x	$y+60'$ y	Mag.		α 57^m	x	$y+60'$ y
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
17.51	2	52	85.3	52.4	17.66	2	54	85.8	50.9	17.58	2	56	86.1	4.6	17.88	2	1	87.1	49.9	14.88	10	12	89.6	47.1
17.38	2	52	85.3	59.9	17.74	2	54	85.8	52.1	17.76	2	57	86.2	50.8	15.89	7	0	87.1	5.6	17.82	2	12	89.6	48.4
17.46	2	52	85.3	0.0	17.95	2	54	85.8	52.9	17.66	2	56	86.2	51.4	17.71	2	1	87.2	48.6	17.58	2	12	89.6	5.8
17.95	2	52	85.3	0.1	14.00	12	54	85.8	53.8	17.35	2	57	86.2	51.6	17.63	2	1	87.2	49.4	17.58	2	12	89.6	6.2
17.46	2	52	85.3	3.2	17.74	2	54	85.8	55.4	17.95	2	57	86.2	52.1	17.68	2	1	87.3	47.9	16.41	5	12	89.7	5.6
15.44	7	53	85.4	50.2	17.46	2	54	85.8	55.9	15.57	6	56	86.2	53.5	16.10	7	2	87.4	48.4	17.60	2	12	89.7	6.2
16.34	7	52	85.4	50.4	17.56	2	55	85.8	57.2	17.60	2	57	86.2	54.2	15.10	9	2	87.4	48.8	16.41	5	12	89.7	6.4
16.60	4	53	85.4	50.6	15.67	8	54	85.8	58.2	16.08	7	57	86.2	55.2	17.60	2	2	87.4	5.3	17.03	2	13	89.8	46.3
17.26	2	53	85.4	51.2	16.34	7	54	85.8	58.4	17.24	2	57	86.2	57.8	17.71	2	2	87.5	5.4	17.44	2	13	89.8	46.4
17.67	2	52	85.4	51.4	17.34	2	54	85.8	59.4	17.95	2	56	86.2	58.5	17.64	2	3	87.6	48.4	16.37	6	13	89.8	46.7
16.32	6	53	85.4	51.8	17.88	2	54	85.8	59.7	16.62	6	57	86.2	59.0	17.41	2	3	87.6	49.4	17.71	2	13	89.8	47.3
17.38	2	53	85.4	52.2	17.70	2	54	85.8	0.9	17.66	2	56	86.2	59.6	11.24	11	4	87.8	5.8	17.46	2	13	89.8	47.6
15.95	6	53	85.4	52.3	17.70	2	54	85.8	2.4	16.18	7	56	86.2	0.2	17.85	2	4	87.9	49.9	14.15	7	13	89.8	49.4
15.81	7	53	85.4	52.8	15.98	6	54	85.8	3.2	15.54	7	56	86.2	1.1	16.11	7	4	87.9	6.0	17.95	2	13	89.9	49.5
15.38	8	52	85.4	53.0	17.58	2	54	85.8	4.1	17.28	2	56	86.2	1.3	17.66	2	5	88.1	47.1	17.59	2	13	89.9	5.4
16.41	7	53	85.4	53.5	17.66	2	55	85.9	49.9	14.99	9	56	86.2	1.8	17.08	2	6	88.2	46.6	17.60	2	13	89.9	5.5
15.59	7	52	85.4	56.5	17.56	2	55	85.9	50.6	16.35	5	56	86.2	2.8	17.40	2	6	88.2	47.9	17.41	2	14	90.1	47.2
17.69	2	53	85.4	58.0	17.85	2	55	85.9	51.7	14.16	4	56	86.2	3.2	14.60	9	5	88.2	48.3	17.79	2	14	90.1	47.3
13.90	12	53	85.4	58.4	16.13	7	55	85.9	51.9	17.46	2	56	86.2	4.4	17.79	2	6	88.2	48.4	17.85	2	14	90.1	48.6
17.51	2	53	85.4	58.5	17.70	2	55	85.9	53.8	16.23	7	56	86.2	4.8	17.95	2	6	88.2	49.4	17.41	2	14	90.1	6.4
17.22	2	53	85.4	59.0	17.32	2	55	85.9	58.1	17.79	2	57	86.3	50.6	17.48	2	6	88.2	5.4	17.26	2	15	90.2	47.1
17.68	2	53	85.4	59.4	16.37	7	55	85.9	59.1	17.77	2	57	86.3	51.5	17.05	2	5	88.2	6.2	17.98	2	15	90.2	49.3
17.51	2	53	85.4	0.1	17.04	2	55	85.9	59.4	17.58	2	57	86.3	54.2	16.99	2	6	88.4	46.4	18.09	2	15	90.2	50.0
17.67	2	53	85.4	1.8	17.43	2	55	85.9	0.6	17.60	2	57	86.3	56.1	17.76	2	7	88.4	48.2	17.58	2	15	90.2	5.4
17.20	2	53	85.4	2.0	17.95	2	55	85.9	0.7	16.99	2	57	86.3	56.3	17.74	2	6	88.4	49.4	17.68	2	15	90.2	7.4
17.76	2	53	85.4	2.8	16.74	5	55	85.9	0.9	17.69	2	57	86.3	56.5	16.16	7	7	88.4	6.2	17.88	2	15	90.3	48.4
17.25	2	53	85.4	3.1	15.37	8	55	85.9	1.8	18.09	2	57	86.3	57.5	13.72	4	7	88.5	46.4	12.69	15	15	90.3	49.4
16.55	5	53	85.5	54.9	16.25	7	55	85.9	2.5	16.54	5	57	86.3	0.7	17.76	2	7	88.5	48.4	17.66	2	16	90.4	49.4
17.88	2	53	85.5	59.1	14.68	10	55	85.9	3.2	16.21	7	57	86.3	1.0	17.88	2	7	88.5	49.2	17.95	2	16	90.4	49.6
17.82	2	53	85.5	0.4	17.66	2	55	86.0	49.7	17.67	2	57	86.3	3.6	17.48	2	7	88.5	5.8	14.36	10	16	90.4	49.9
17.60	2	53	85.5	2.8	17.71	2	55	86.0	56.3	15.69	7	58	86.4	47.9	11.16	8	7	88.6	46.4	14.64	10	16	90.4	6.8
17.64	2	54	85.6	49.1	17.64	2	55	86.0	57.6	15.69	7	57	86.4	49.4	15.95	7	7	88.6	47.4	16.50	3	16	90.5	45.9
16.48	6	54	85.6	50.1	17.48	2	56	86.0	58.3	17.79	2	57	86.4	50.3	17.79	2	8	88.7	48.0	17.66	2	16	90.5	46.1
14.40	10	54	85.6	51.8	16.91	4	55	86.0	58.6	17.76	2	57	86.4	50.4	17.82	2	8	88.7	49.4	15.22	6	16	90.5	47.6
16.56	6	54	85.6	52.8	14.93	10	55	86.0	59.6	16.40	7	57	86.4	51.2	17.74	2	8	88.8	46.7	17.71	2	16	90.6	46.8
17.88	2	53	85.6	54.2	17.95	2	56	86.0	59.7	17.02	2	58	86.4	51.6	17.00	2	8	88.8	49.6	17.36	2	16	90.6	46.9
16.32	7	54	85.6	54.8	17.66	2	55	86.0	0.8	17.47	2	57	86.4	53.4	17.71	2	8	88.8	5.6	16.37	7	17	90.6	48.4
16.21	7	54	85.6	56.1	17.88	2	56	86.0	1.8	18.09	2	57	86.4	55.1	13.29	14	8	88.8	6.2	17.60	2	17	90.6	49.1
16.55	6	54	85.6	56.2	16.45	7	55	86.0	1.9	15.84	7	57	86.4	56.1	17.76	2	9	88.9	47.0	17.16	2	17	90.6	7.4
17.60	2	54	85.6	56.5	16.77	2	56	86.0	2.8	17.72	2	57	86.4	57.0	16.87	2	9	88.9	50.0	16.91	2	17	90.7	45.9
17.32	2	54	85.6	56.9	15.05	8	56	86.0	3.2	11.70	14	57	86.4	57.1	17.28	2	9	88.9	6.2	17.52	2	17	90.7	48.7
16.34	7	54	85.6	57.0	17.44	2	55	86.0	4.0	16.67	6	57	86.4	57.6	17.44	2	9	88.9	6.8	16.60	7	17	90.7	49.3
17.79	2	54	85.6	57.3	17.24	2	55	86.0	4.2	13.66	14	57	86.4	57.8	17.79	2	9	89.0	47.5	16.70	4	17	90.7	5.8
17.22	2	54	85.6	57.7	17.71	2	56	86.1	48.8	16.92	4	57	86.4	58.8	16.37	7	9	89.0	49.0	17.26	2	17	90.7	6.1
17.95	2	53	85.6	59.0	16.45	6	56	86.1	50.2	14.98	10	57	86.4	59.3	16.98	2	10	89.1	47.9	17.25	2	17	90.7	6.9
17.54	2	53	85.6	59.4	17.95	2	56	86.1	51.2	17.58	2	57	86.4	0.4	17.34	2	10	89.1	49.2	17.74	2	18	90.8	46.9
17.88	2	53	85.6	59.6	14.26	12	56	86.1	53.2	17.25	2	57	86.4	1.4	16.30	7	10	89.1	49.6	17.88	2	18	90.8	47.8
17.79	2	54	85.6	59.8	17.58	2	56	86.1	53.4	17.44	2	57	86.4	1.5	17.71	2	10	89.2	47.1	17.88	2	18	90.8	48.0
17.88	2	53	85.6	0.4	16.35	7	56	86.1	53.7	17.71	2	57	86.4	2.4	16.60	3	10	89.2	47.6	15.46	8	17	90.8	48.2
16.34	7	53	85.6	0.6	17.20	2	56	86.1	55.7	16.33	7	57	86.4	3.8	17.95	2	10	89.2	49.2	16.60	3	18	90.8	48.6
16.30	7	53	85.6	1.0	16.33	7	56	86.1	56.4	17.67	2	58	86.5	49.6	17.30	2	10	89.2	5.6	16.82	2	17	90.8	49.8
17.64	2	53	85.6	2.6	16.76	6	56	86.1	57.3	16.52	6	58	86.5	2.0	14.75	9	10	89.2	6.0	17.95	2	17	90.8	5.1
17.71	2	53	85.6	3.3	17.54	2	56	86.1	57.6	17.64	2	58	86.6	47.7	16.13	7	10	89.2	6.4	15.34	9	17	90.8	5.6
17.20	2	54	85.6	3.4	17.24	2	56	86.1	58.6	15.20	8	58	86.6	49.2	17.63	2	11	89.4	47.6	17.48	2	17	90.8	6.0
17.49	2	53	85.6	3.5	16.77	3	56	86.1	59.4	15.94	7	58	86.6	49.4	16.34	7	11	89.4	47.8	13.31	14	18	90.9	45.4
17.54	2	54	85.7	49.6	17.82	2	56	86.1	1.1	17.71	2	59	86.7	49.0	17.85	2	11	89.4	49.0	16.57	4	18	90.9	45.6
15.69	7	54	85.7	51.6	17.76	2	56	86.1	2.0	17.44	2	59	86.7	5.3	16.46	5	11	89.4	5.6	17.62	2	19	91.0	45.6
17.95	2	54	85.7	52.5	16.38	7	56	86.1	2.6	17.36	2	59	86.8	48.8	17.76	2	11	89.4	5.8	14.51	11	19	91.0	47.5
17.95	2	54	85.7	53.4	17.71	2	56	86.1	3.3	17.18	2	60	86.9	48.4	17.48	2	11	89.4	6.2	13.14	15	19	91.0	48.0
16.86	2	54	85.7	57.5	16.01	7	56	86.1	4.4	13.81	11	60	87.0	49.4	16.52	3	12	89.6	46.6	15.93	7	19	91.0	48.2

25 prec. + $60^s.0$, + 4′ 6″

601s—660s					661s—720s					721s—780s					781s—840s					841s—900s				
Mag.		α 57^m	x	$y+60'$ y	Mag.		α 57^m	x	$y+60'$ y	Mag.		α 57^m	x	$y+60'$ y	Mag.		α 57^m	x	$y+60'$ y	Mag.		α 57^m	x	$y+60'$ y
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
17.49	2	19	91.0	48.5	17.43	2	27	92.8	48.0	17.56	2	34	94.3	6.5	17.39	2	41	95.8	49.4	16.90	2	48	97.4	48.2
17.79	2	18	91.0	5.4	16.51	7	27	92.8	48.1	16.38	7	34	94.4	45.4	16.64	6	41	95.8	49.9	17.74	2	48	97.4	48.9
17.67	2	18	91.0	5.6	17.58	2	27	92.8	49.2	15.10	9	34	94.4	45.6	17.68	2	41	95.9	46.3	17.16	2	48	97.4	49.4
17.64	2	18	91.0	5.8	16.40	5	27	92.8	5.6	16.01	7	34	94.4	6.8	17.76	2	41	95.9	46.6	17.62	2	48	97.4	49.6
14.96	10	19	91.0	6.1	17.64	2	27	92.8	5.7	13.24	14	34	94.4	7.4	17.19	2	41	95.9	46.7	13.31	16	48	97.4	6.7
17.74	2	19	91.1	46.4	17.60	2	26	92.8	7.0	17.95	2	35	94.5	48.8	15.83	7	41	95.9	47.2	16.92	2	48	97.5	49.0
17.52	2	19	91.1	47.2	9.86	8	27	92.9	45.2	17.46	2	35	94.6	46.2	16.46	7	41	95.9	47.9	17.68	2	49	97.6	46.6
17.71	2	19	91.1	6.8	17.40	2	27	92.9	47.0	17.76	2	35	94.6	46.6	17.76	2	41	95.9	48.3	17.12	2	49	97.6	49.1
17.95	2	19	91.2	48.9	17.82	2	27	92.9	47.8	13.75	12	35	94.6	46.8	16.61:	4	41	95.9	48.9	15.68	7	49	97.7	46.7
17.41	2	20	91.3	46.4	17.38	2	27	92.9	48.8	17.53	2	35	94.6	47.0	17.19	2	41	95.9	50.0	17.74	2	49	97.7	48.4
17.60	2	20	91.3	6.6	16.14	7	28	93.0	46.2	15.92	7	35	94.6	48.2	17.28	2	42	96.0	45.6	17.51	2	50	97.8	5.2
17.76	2	20	91.4	46.6	15.14	9	28	93.0	7.2	17.30	2	35	94.6	48.7	16.25	7	42	96.0	45.9	13.27	14	50	97.8	6.1
17.88	2	20	91.4	47.6	17.67	2	28	93.1	46.1	17.80	2	35	94.6	49.3	17.58	2	42	96.0	46.3	15.22	9	50	97.9	48.4
16.94	2	21	91.4	49.0	17.67	2	28	93.1	6.2	17.67	2	35	94.6	49.9	17.85	2	42	96.0	48.2	17.14	2	50	97.9	49.6
14.37	10	20	91.4	49.9	16.46	5	28	93.1	6.8	18.06	2	35	94.6	50.0	16.50	7	42	96.0	48.4	17.58	2	51	98.0	47.9
14.84	10	20	91.4	5.7	16.34	5	28	93.1	7.4	16.36	7	35	94.6	5.4	17.58	2	42	96.0	7.5	17.85	2	51	98.0	5.1
17.56	2	20	91.4	6.4	17.76	2	29	93.2	46.4	17.56	2	35	94.6	7.0	16.20	7	42	96.1	46.3	17.60	2	51	98.0	5.3
17.44	2	20	91.4	7.0	17.95	2	28	93.2	47.8	17.08	2	36	94.7	45.8	17.54	2	42	96.1	48.9	17.67	2	51	98.0	6.0
10.41	11	21	91.5	49.6	16.65	6	29	93.2	49.1	15.74	8	36	94.7	48.4	17.56	2	42	96.1	49.2	17.79	2	51	98.1	5.6
17.88	2	21	91.5	5.4	16.64	7	29	93.2	49.6	18.09	2	36	94.7	49.2	15.82	5	42	96.1	7.1	17.76	2	52	98.2	47.7
17.64	2	21	91.6	45.4	17.46	2	29	93.2	5.5	16.46	5	36	94.7	6.0	17.40	2	42	96.2	46.4	17.79	2	52	98.2	48.8
17.22	2	21	91.6	46.1	17.44	2	29	93.2	5.9	17.62	2	36	94.8	45.3	17.79	2	42	96.2	47.6	17.88	2	52	98.3	48.3
17.51	2	21	91.6	6.4	17.60	2	28	93.2	6.0	17.76	2	36	94.8	45.9	15.10	10	42	96.2	49.8	17.12	2	53	98.4	45.9
15.08	9	22	91.7	47.0	17.62	2	29	93.2	6.9	15.96	7	36	94.8	46.8	17.28	2	43	96.3	45.7	17.76	2	53	98.4	48.1
17.06	2	22	91.7	49.1	16.70	2	29	93.3	46.7	17.98	2	36	94.8	48.4	16.44	6	43	96.3	46.1	17.88	2	53	98.4	49.0
16.10	7	22	91.7	5.8	16.24	4	29	93.3	7.8	15.82	7	36	94.8	49.8	17.76	2	43	96.3	46.4	17.51	2	53	98.4	49.4
17.63	2	22	91.7	7.1	16.30	3	29	93.3	7.9	16.68	4	36	94.9	47.9	17.85	2	43	96.3	5.6	17.44	2	53	98.4	49.5
17.79	2	22	91.8	5.3	17.62	2	30	93.4	45.3	17.62	2	36	94.9	49.8	17.88	2	44	96.4	47.6	16.45	6	53	98.5	46.0
16.80	4	22	91.8	5.4	17.76	2	30	93.4	46.6	17.71	2	36	94.9	6.7	16.15	5	43	96.4	48.8	17.67	2	53	98.5	49.7
14.94	10	23	91.9	45.3	17.74	2	30	93.4	47.0	17.24	2	37	95.0	46.1	17.71	2	43	96.4	6.7	17.79	2	53	98.5	5.2
14.16	12	23	91.9	49.4	15.72	8	30	93.4	48.3	17.95	2	37	95.0	47.6	16.48	5	44	96.5	46.6	17.58	2	53	98.5	5.6
17.54	2	23	91.9	5.7	17.82	2	29	93.4	5.4	17.95	2	37	95.0	6.0	14.77	9	44	96.6	47.7	17.06	2	54	98.6	6.7
16.49	5	23	91.9	5.8	16.61	7	30	93.5	49.1	17.58	2	37	95.0	6.7	17.44	2	44	96.6	48.1	16.74	2	54	98.7	46.2
17.58	2	23	92.0	45.4	17.61	2	30	93.6	5.3	17.58	2	37	95.0	7.3	17.94	2	45	96.6	49.4	17.95	2	54	98.7	49.5
17.64	2	23	92.0	46.4	17.34	2	30	93.6	5.6	15.88	5	37	95.0	7.8	18.09	2	44	96.6	49.8	17.52	2	54	98.7	49.7
17.38	2	23	92.0	47.9	17.04	2	30	93.6	5.8	16.90	2	37	95.1	47.6	15.91	5	44	96.6	6.7	17.44	2	54	98.7	6.6
17.74	2	23	92.0	48.0	17.63	2	30	93.6	6.2	17.80	2	37	95.1	48.7	17.04	2	44	96.6	7.3	15.47	7	54	98.8	46.5
16.98	2	23	92.0	49.3	17.08	2	30	93.6	6.5	16.42	6	37	95.1	6.6	17.50	2	45	96.7	49.5	17.28	2	55	98.8	48.4
15.35	8	23	92.0	49.4	17.29	2	30	93.6	7.3	17.56	2	37	95.1	7.7	15.91	5	45	96.7	5.1	12.64	12	54	98.8	49.3
15.17	8	23	92.0	49.5	14.71	10	31	93.6	7.6	15.52	8	38	95.2	47.5	17.74	2	45	96.7	5.9	15.96	5	54	98.8	6.6
17.41	2	23	92.0	7.6	17.68	2	31	93.8	45.4	17.64	2	38	95.2	5.4	17.26	2	45	96.8	5.2	14.63	10	55	98.9	46.2
15.85	7	23	92.0	7.8	17.58	2	31	93.8	46.0	17.82	2	38	95.2	5.6	17.40	2	45	96.8	6.0	16.05	7	55	98.9	47.9
17.88	2	24	92.1	47.4	17.85	2	31	93.8	46.2	16.32	7	38	95.2	6.0	17.17	2	45	96.8	7.1	17.85	2	55	98.9	48.2
16.96	2	24	92.2	46.1	17.57	2	32	93.8	48.4	17.76	2	38	95.2	7.2	17.68	2	45	96.8	7.4	17.88	2	55	99.0	48.9
17.85	2	24	92.2	47.3	17.88	2	32	93.8	5.5	13.33	14	38	95.3	49.2	17.17	2	46	96.9	47.3	15.80	5	56	99.0	5.8
17.76	2	24	92.3	46.3	17.46	2	32	93.9	46.1	18.09	2	38	95.3	49.4	16.09	7	46	96.9	47.7	17.58	2	55	99.0	5.9
17.95	2	24	92.3	47.3	17.79	2	32	93.9	46.3	16.63	6	39	95.4	48.6	17.54	2	46	97.0	5.1	16.54	4	56	99.1	46.3
16.86	4	24	92.3	48.8	16.62	4	32	93.9	46.6	16.34	7	39	95.4	5.6	15.72	8	47	97.1	49.4	14.22	12	56	99.1	46.4
17.74	2	25	92.4	5.5	17.62	2	32	93.9	47.0	17.62	2	39	95.5	47.5	17.53	2	47	97.2	47.4	17.40	2	56	99.1	47.7
17.11	2	25	92.4	6.2	17.63	2	32	93.9	48.6	17.67	2	39	95.5	48.3	16.10	6	47	97.2	48.8	16.46	7	56	99.1	48.6
17.88	2	25	92.5	48.2	17.06	2	32	93.9	49.4	16.12:	6	39	95.5	48.7	17.20	2	47	97.2	50.0	17.67	2	57	99.2	48.6
17.79	2	25	92.5	5.4	17.68	2	32	94.0	45.8	16.29	7	39	95.6	45.6	17.63	2	47	97.2	5.7	17.85	2	57	99.2	48.8
16.46	5	26	92.6	5.8	16.51	6	32	94.0	6.2	16.91	2	40	95.6	46.2	16.02	5	47	97.2	6.4	16.14	7	56	99.2	5.6
16.78	4	26	92.6	6.1	17.34	2	32	94.0	6.4	17.47	2	40	95.6	46.5	17.79	2	48	97.3	46.9	16.30	7	57	99.3	5.1
17.29	2	26	92.6	7.0	17.79	2	33	94.1	46.4	15.47	6	40	95.6	46.9	16.39	7	48	97.3	47.0	17.76	2	57	99.3	5.6
17.50	2	26	92.7	48.0	17.85	2	33	94.1	46.9	17.95	2	40	95.6	48.0	17.79	2	48	97.3	47.5	17.30	2	57	99.4	46.6
16.11	6	26	92.7	48.6	16.49	7	33	94.1	47.9	17.76	2	40	95.7	7.3	17.76	2	48	97.3	47.6	16.29	7	57	99.4	48.4
16.41	7	26	92.7	49.9	18.02	2	33	94.1	49.6	17.71	2	40	95.8	46.2	17.85	2	48	97.3	5.5	15.65	7	57	99.4	49.4
14.88	10	27	92.8	45.6	17.79	2	33	94.2	49.4	17.85	2	41	95.8	46.8	14.72	11	48	97.3	7.1	17.64	2	57	99.4	49.6
16.02	7	27	92.8	47.4	17.46	2	33	94.2	6.4	15.81	7	41	95.8	48.1	17.74	2	48	97.4	46.9	17.95	2	57	99.4	49.8

25 prec. + $60\overset{s}{.}0$, + 4′ 6″

901s—960s				
Mag.		α 57m	x	y+60′ / y
		s	′	′
17.24	2	57	99.4	5.2
16.42	4	58	99.5	46.6
16.44	7	58	99.6	49.2
15.99	7	58	99.6	49.8
17.49	2	59	99.7	48.2
16.62	4	59	99.7	49.4
17.95	2	59	99.7	49.6
16.97	2	59	99.7	5.6
17.00	2	59	99.8	49.4
17.58	2	60	0.0	48.5
15.57	6	60	0.0	5.2
16.18	7	60	0.1	46.9
17.76	2	60	0.1	49.4
15.30	9	61	0.3	47.8
17.68	2	61	0.3	48.5
16.44	5	62	0.4	47.0
16.01	7	63	0.6	50.0
17.44	2	63	0.7	47.4
17.56	2	64	0.8	47.4
14.57	11	64	0.9	49.4
17.46	2	64	0.9	49.8
15.73	7	64	0.9	49.9
17.66	2	64	1.0	47.4
17.71	2	65	1.0	49.1
16.86	2	65	1.0	49.2
17.62	2	65	1.1	48.1
15.09	9	66	1.2	49.0
15.88	5	65	1.2	5.4
16.15	7	66	1.4	47.8
16.37	4	67	1.4	48.4
15.47	7	66	1.4	48.6
17.85	2	67	1.6	50.1
16.99	2	67	1.6	50.2
18.02	2	68	1.6	56.9
17.95	2	67	1.6	1.0
15.29	9	67	1.6	1.2
17.95	2	68	1.6	1.4
17.51	2	67	1.6	4.4
17.53	2	68	1.6	4.6
17.95	2	68	1.7	52.6
17.56	2	68	1.7	57.8
16.29	7	68	1.7	58.0
17.08	2	68	1.7	58.4
13.62	13	68	1.7	0.6
16.10	7	68	1.8	50.6
16.57	6	68	1.8	54.6
16.60	6	68	1.8	57.5
17.63	2	68	1.8	59.4
14.73	10	68	1.8	59.7
14.65	11	68	1.8	2.3
16.03	7	69	1.8	4.2
16.43	7	69	1.9	51.0
16.59	7	69	1.9	57.2
17.24	2	69	1.9	57.4
15.81	7	69	1.9	58.8
17.58	2	69	1.9	1.5
17.44	2	69	2.0	49.0
17.41	2	69	2.0	59.4
17.25	2	69	2.0	59.8
14.25	11	70	2.1	48.6

961s—1020s				
Mag.		α 58m	x	y+60′ / y
		s	′	′
17.41	2	10	2.1	51.1
17.44	2	10	2.1	51.4
17.73	2	10	2.1	52.5
17.20	2	10	2.1	56.4
17.20	2	10	2.1	58.4
17.76	2	10	2.1	1.6
17.58	2	10	2.1	1.7
17.00	2	10	2.2	51.1
17.71	2	10	2.2	55.4
17.79	2	10	2.2	56.0
16.82	4	10	2.2	56.4
17.43	2	10	2.2	58.6
17.85	2	10	2.2	58.7
15.42	6	10	2.2	59.0
17.39	2	10	2.2	1.4
17.34	2	10	2.2	1.8
17.38	2	10	2.2	3.4
13.40	14	11	2.3	49.8
17.10	2	11	2.3	58.4
16.46	7	11	2.4	50.2
15.84	7	11	2.4	50.9
17.76	2	11	2.4	55.3
16.52:	4	11	2.4	56.8
14.50	11	11	2.4	58.4
13.19	14	11	2.4	0.2
16.35	5	11	2.4	0.4
16.22	5	11	2.4	2.2
17.49	2	12	2.5	53.0
17.56	2	12	2.5	59.1
16.12	7	12	2.6	50.9
17.66	2	12	2.6	51.5
16.98	2	12	2.6	52.6
15.62	6	12	2.6	56.4
16.46	7	12	2.6	59.2
17.44	2	12	2.6	59.6
17.14	2	12	2.6	2.4
17.44	2	12	2.7	51.2
17.61	2	12	2.7	57.1
14.28	12	12	2.7	57.2
16.52	6	13	2.8	56.4
16.51	7	13	2.8	58.5
15.94	7	13	2.8	1.2
17.02	2	13	2.9	51.6
16.52	6	13	2.9	53.6
17.68	2	14	3.0	54.4
17.88	2	14	3.0	56.3
17.58	2	14	3.0	59.8
17.62	2	14	3.0	0.1
17.76	2	14	3.0	1.8
17.76	2	14	3.0	2.4
16.64	4	14	3.0	3.2
15.79	7	14	3.0	3.4
17.56	2	14	3.1	50.0
17.78	2	14	3.1	57.6
17.71	2	14	3.1	1.8
17.56	2	15	3.2	54.2
15.93	7	15	3.2	55.3
16.43	7	15	3.2	59.3
17.64	2	15	3.2	3.2
17.41	2	16	3.4	52.3

1021s—1080s				
Mag.		α 58m	x	y+60′ / y
		s	′	′
17.20	2	16	3.4	52.5
17.85	2	16	3.4	54.1
16.39	7	15	3.4	55.6
17.85	2	16	3.4	56.6
17.36	2	16	3.4	57.4
17.66	2	16	3.5	50.6
17.63	2	16	3.5	0.0
16.37	6	17	3.6	51.3
17.76	2	16	3.6	53.0
17.22	2	17	3.6	53.2
15.29	8	17	3.6	53.3
16.19	7	17	3.6	58.0
17.71	2	16	3.6	0.6
17.68	2	17	3.6	0.9
16.64	6	17	3.6	1.2
9.27	7	17	3.7	51.2
13.84	9	17	3.7	52.6
16.12	5	17	3.7	55.5
16.49	7	17	3.7	56.0
13.70	11	17	3.7	56.5
17.43	2	17	3.7	1.5
17.18	2	17	3.7	2.4
15.08	9	17	3.8	50.6
14.92	10	18	3.8	54.2
17.16	2	18	3.8	54.4
17.82	2	18	3.8	56.6
16.48	6	18	3.8	0.6
17.46	2	18	3.8	1.1
16.43	7	18	3.9	51.0
15.04	9	18	3.9	51.9
13.90	10	18	3.9	56.4
17.85	2	18	3.9	56.6
16.27	7	18	3.9	57.6
17.00	2	18	3.9	58.8
14.45	11	18	3.9	1.0
17.34	2	18	4.0	52.0
15.77	7	18	4.0	52.4
17.36	2	19	4.1	55.0
17.85	2	19	4.1	56.2
13.34	13	19	4.1	56.9
16.58	4	19	4.1	0.6
17.48	2	19	4.1	1.3
17.58	2	19	4.2	0.4
17.64	2	19	4.2	0.9
14.23	11	20	4.3	53.4
17.68	2	20	4.3	55.4
17.74	2	20	4.3	56.8
16.40	7	21	4.4	53.2
17.56	2	21	4.4	54.6
17.49	2	21	4.5	53.3
17.68	2	21	4.5	56.6
16.49	5	21	4.5	59.5
17.64	2	21	4.6	59.2
17.71	2	21	4.6	59.4
17.48	2	22	4.7	59.8
16.27	6	22	4.7	59.9
17.62	2	22	4.8	53.1
16.15	7	22	4.8	56.0
16.04	7	22	4.8	56.3
15.02	9	23	4.9	53.4

1081s—1089s				
Mag.		α 58m	x	y+60′
		s	′	′
17.76	2	23	4.9	56.7
13.58	12	23	4.9	57.0
13.69	9	23	4.9	59.3
17.18	2	23	5.0	58.6
14.15	10	23	5.0	58.8
16.26	7	23	5.0	59.0
14.26	10	24	5.1	55.1
17.02	2	24	5.2	55.4
17.68	2	25	5.4	56.2

25 prec. + 60.ˢ0, + 4′ 7″

Area 65. Center for 1900: 20h 59m + 30° 10′ (15′ × 15′)

1—60				
Mag.		α 58m	x	y+10′
		s	′	′ ″
17.91	3	41.5	96.00	13 08
17.85	3	41.6	96.03	1 05
17.90	3	41.7	96.05	4 27
18.29	3	41.7	96.05	8 07
15.08	11	41.8	96.07	0 12
15.57	10	41.9	96.09	5 31
18.39	3	42.0	96.10	9 20
18.23	3	41.9	96.10	14 21
18.24	2	42.0	96.12	13 55
18.58	2	42.2	96.16	7 58
18.47	3	42.5	96.22	4 41
16.97	7	42.6	96.24	8 42
18.11	3	42.7	96.27	5 08
18.29	3	42.8	96.29	12 40
14.02	14	42.9	96.30	8 58
18.36	3	42.9	96.30	4 09
16.41	10	43.0	96.32	8 26
18.18	3	43.0	96.33	0 25
18.30	3	43.1	96.35	4 31
17.78	3	43.1	96.35	11 58
18.32	3	43.1	96.35	10 30
18.50	2	43.1	96.36	14 28
17.37	3	43.2	96.37	13 22
16.93	8	43.5	96.42	3 53
18.42	3	43.5	96.42	4 01
16.78	8	43.5	96.44	13 36
17.98	3	43.5	96.45	13 26
16.96	6	43.6	96.45	0 57
15.00	12	43.6	96.46	6 39
18.28	3	43.6	96.46	11 29
17.06	6	43.8	96.49	8 41
18.29	3	43.8	96.50	6 35
19.02	1	44.0	96.55	7 32
18.02	3	44.0	96.55	13 06
16.73	9	44.1	96.56	6 31
16.63	9	44.1	96.56	7 11
17.29	5	44.2	96.58	2 43
18.36	3	44.2	96.59	8 24
14.89	12	44.3	96.60	9 48
17.16	3	44.3	96.61	14 27
18.35	3	44.5	96.65	10 59
18.55	3	44.5	96.65	10 35
18.19	3	44.6	96.66	7 14
18.00	3	44.6	96.67	1 11
18.52	2	44.6	96.69	12 25
18.38	3	44.8	96.70	3 02
17.95	3	44.7	96.71	14 28
18.16	3	44.8	96.72	11 47
17.57	3	44.9	96.75	13 36
17.96	3	45.0	96.76	10 54
19.02	1	45.0	96.76	8 27
17.96	3	45.0	96.76	4 55
19.02	1	45.1	96.77	2 10
17.57	5	45.1	96.78	6 53
18.91	1	45.2	96.79	1 05
18.91	1	45.2	96.79	0 08
18.17	3	45.2	96.80	3 17
17.17	6	45.3	96.82	2 03
17.03	6	45.3	96.83	7 11
16.85	8	45.4	96.84	12 11

61—120				
Mag.		α 58m	x	y+10′
		s	′	′ ″
17.93	3	45.4	96.85	11 33
16.75	8	45.4	96.86	12 31
18.24	3	45.5	96.86	2 15
18.21	3	45.5	96.87	6 15
17.83	3	45.6	96.88	5 48
18.52	3	45.6	96.89	7 41
18.91	1	45.7	96.90	0 24
18.22	3	45.8	96.92	4 39
17.88	3	45.7	96.93	13 21
18.31	3	45.9	96.95	3 33
16.90	8	45.9	96.95	3 21
16.05	10	46.0	96.98	0 29
18.11	3	46.0	96.98	1 22
16.86	7	46.2	97.02	8 06
18.05	3	46.2	97.02	13 03
18.10*	1	46.2	97.05	13 45
16.83	8	46.3	97.05	11 56
18.10	1	46.4	97.06	13 43
18.86	2	46.5	97.08	7 29
17.20	5	46.6	97.11	9 58
16.33	10	46.6	97.11	2 54
18.07	3	46.7	97.12	0 00
18.26	3	46.7	97.13	1 30
18.15	3	46.8	97.14	2 24
16.59	10	46.8	97.15	11 06
18.91	1	46.9	97.17	13 26
17.87	3	47.0	97.18	3 34
16.91	8	47.0	97.18	2 45
18.07	3	47.0	97.19	12 34
14.37	13	47.0	97.20	13 13
18.91	1	47.1	97.21	0 39
16.70	9	47.2	97.23	9 06
18.82	1	47.3	97.25	0 27
17.84	3	47.3	97.26	8 49
18.17	3	47.3	97.26	11 44
17.90	3	47.4	97.27	0 41
18.16	3	47.4	97.28	13 51
16.44	9	47.4	97.28	8 00
18.05	3	47.4	97.29	13 55
18.25	3	47.5	97.31	5 19
18.48	2	47.6	97.33	0 02
18.47	3	47.7	97.34	5 51
18.60	2	47.9	97.39	4 40
16.98	8	48.0	97.40	1 14
18.28	2	48.0	97.40	13 10
17.86	3	48.0	97.41	6 55
18.91	1	48.2	97.44	12 47
16.72	9	48.2	97.44	9 43
18.64	3	48.2	97.44	4 45
18.08	3	48.2	97.46	1 39
18.19	3	48.2	97.46	5 04
19.02	1	48.3	97.47	7 54
15.25	11	48.3	97.47	11 38
19.02	1	48.3	97.47	4 34
15.45*	2	48.4	97.49	6 15
18.00	1	48.4	97.50	6 13
18.27	3	48.4	97.50	8 56
17.87	3	48.5	97.52	5 01
15.35	11	48.5	97.53	14 38
13.69	14	48.6	97.54	5 23

121—180				
Mag.		α 58m	x	y+10′
		s	′	′ ″
16.11	9	48.6	97.54	6 57
18.11	3	48.6	97.55	12 46
17.09	3	48.6	97.55	13 28
18.32	3	48.7	97.57	8 43
18.17	3	48.7	97.57	1 27
16.84	9	49.0	97.62	1 02
15.64	10	49.0	97.62	5 11
17.96	2	49.2	97.67	1 25
17.35	5	49.3	97.68	7 08
17.39	4	49.4	97.70	6 26
17.67	3	49.4	97.70	8 54
17.96	2	49.4	97.71	12 15
16.46	10	49.4	97.71	10 46
18.91	1	49.5	97.73	12 48
18.49	3	49.6	97.75	7 33
19.02	1	49.6	97.75	5 01
19.02	1	49.6	97.76	8 06
18.63	3	49.6	97.76	7 28
17.36	3	49.6	97.76	9 04
19.12	1	49.6	97.76	6 56
18.82	1	49.6	97.76	4 58
17.06	7	49.6	97.76	1 26
16.92	8	49.6	97.76	3 09
18.24	3	49.8	97.79	2 10
18.72	3	49.8	97.80	3 51
17.79	3	49.8	97.80	9 41
18.61	2	49.9	97.82	8 41
18.71*	1	49.9	97.83	5 45
17.59	3	50.1	97.86	13 20
18.31	1	50.2	97.88	5 44
17.51	4	50.3	97.90	4 32
15.63	10	50.4	97.92	4 51
18.10	3	50.4	97.92	3 35
17.88	3	50.4	97.92	1 16
16.16	10	50.4	97.92	1 09
18.66	3	50.4	97.92	11 23
19.02	1	50.5	97.95	8 16
17.14	6	50.6	97.97	3 46
18.05	3	50.6	97.97	3 23
15.33	10	50.7	97.99	5 09
19.12	1	50.8	98.01	8 40
18.69	2	51.0	98.04	9 18
18.13	3	51.0	98.06	8 02
17.88	3	51.0	98.06	6 27
18.63	2	51.0	98.06	12 59
17.89	1	51.1	98.08	14 54
19.12	1	51.2	98.09	4 06
15.75	10	51.2	98.09	1 56
16.93	8	51.2	98.11	1 24
16.57	10	51.3	98.12	14 18
18.21	3	51.3	98.13	3 46
18.37	3	51.4	98.14	4 17
17.71	3	51.4	98.14	1 01
18.58	3	51.5	98.17	6 07
19.02	1	51.7	98.20	9 57
19.12	1	51.7	98.21	4 11
18.21	3	51.7	98.22	11 14
18.03	3	51.7	98.23	10 04
18.31	3	51.9	98.25	7 15
18.46	2	51.9	98.26	8 45

181—240				
Mag.		α 58m	x	y+10′
		s	′	′ ″
18.40	3	52.0	98.27	3 40
18.33	3	52.1	98.30	8 01
18.37	3	52.1	98.31	9 02
15.86	10	52.2	98.33	8 06
19.02	1	52.2	98.33	3 28
18.52	3	52.3	98.34	5 15
17.09	7	52.5	98.38	5 43
16.40	10	52.5	98.39	4 19
15.15	11	52.7	98.42	13 13
17.49	3	52.8	98.44	13 32
16.72	9	52.8	98.45	14 15
16.84	7	52.8	98.45	14 08
17.33	3	52.9	98.47	13 23
14.15	14	52.9	98.47	8 08
19.02	1	53.1	98.51	4 30
18.30	3	53.2	98.52	8 40
16.10	10	53.2	98.53	8 15
18.78	2	53.3	98.54	11 46
17.87	3	53.3	98.55	6 30
17.95	3	53.4	98.57	7 17
13.00	16	53.5	98.59	14 54
17.72	3	53.5	98.59	10 38
15.69	10	53.5	98.61	10 48
17.37	4	53.5	98.61	3 39
14.18	13	53.5	98.61	4 55
14.74	12	53.6	98.62	0 29
19.02	1	53.7	98.64	10 26
17.95	3	53.7	98.64	5 44
15.39	10	53.7	98.65	4 58
18.88	2	53.8	98.66	11 03
17.42	3	53.8	98.67	9 39
14.25	13	53.8	98.67	1 58
17.72	3	53.9	98.68	8 31
17.80	3	53.9	98.68	5 34
18.05	3	53.9	98.69	8 09
18.07	3	54.0	98.70	2 27
17.86	3	54.1	98.72	3 34
18.08	3	54.1	98.72	2 49
18.58	2	54.2	98.74	5 08
18.04	3	54.2	98.75	3 55
18.20	3	54.3	98.76	8 23
18.37	3	54.3	98.77	7 30
16.45	10	54.3	98.77	6 33
19.02	1	54.3	98.77	12 11
19.12	1	54.5	98.80	4 45
17.95	3	54.4	98.80	12 26
18.29	3	54.4	98.81	12 51
18.46	2	54.6	98.84	11 28
14.73	12	54.5	98.85	3 36
18.24	3	54.7	98.86	8 56
18.77	3	54.8	98.88	9 36
17.65	3	54.8	98.89	13 42
18.50	3	54.9	98.90	7 11
15.98	10	54.9	98.90	0 29
15.67	10	55.1	98.94	3 18
16.35	10	55.1	98.95	4 44
18.48	3	55.2	98.97	9 11
17.23	5	55.2	98.97	5 20
17.27	3	55.3	98.98	14 04
16.72	10	55.4	99.00	3 54

241—300				
Mag.		α 58m	x	y+10′
		s	′	′ ″
17.02	3	55.4	99.01	14 39
18.13	2	55.5	99.02	1 04
18.34	3	55.5	99.03	10 12
18.29	3	55.6	99.04	3 06
18.52	3	55.6	99.05	11 23
18.62	3	55.6	99.05	13 06
16.95	8	55.6	99.06	8 37
17.13	6	55.7	99.08	7 27
19.12	1	55.8	99.11	9 31
17.42	4	56.0	99.14	7 42
18.62	3	56.0	99.14	8 15
17.36	3	56.0	99.14	14 37
15.54	9	56.1	99.17	12 04
16.74	2	56.1	99.17	12 02
16.20	10	56.2	99.18	12 14
18.48	3	56.2	99.18	10 56
17.56	4	56.3	99.20	8 00
18.46	2	56.3	99.21	7 17
17.20	3	56.3	99.21	0 53
17.85	3	56.4	99.23	1 08
18.59	3	56.5	99.25	8 33
17.43	4	56.6	99.26	5 29
18.17	3	56.6	99.26	1 41
18.60	2	56.7	99.28	1 29
18.72	2	56.7	99.29	11 24
18.91	1	57.0	99.34	6 28
16.08	10	57.0	99.35	1 07
15.23	11	57.0	99.36	2 07
17.59	3	57.0	99.36	6 11
18.91	1	57.0	99.36	11 30
16.23	10	57.2	99.41	6 49
18.19	3	57.2	99.41	0 45
17.85	3	57.3	99.43	12 40
14.99	12	57.4	99.45	11 10
17.07	7	57.6	99.48	9 39
17.53	3	57.6	99.48	2 26
16.70	10	57.6	99.49	7 31
18.54	3	57.7	99.50	7 42
16.70	10	57.7	99.50	0 05
17.60	3	57.7	99.51	1 12
17.40	4	57.7	99.51	5 09
17.10	5	57.7	99.51	6 24
17.14	3	57.8	99.52	12 55
15.61	10	57.8	99.53	11 22
17.55	5	57.8	99.53	6 51
18.52	2	58.0	99.56	8 57
17.18	6	58.1	99.58	6 41
18.33	3	58.1	99.58	1 53
17.00	7	58.1	99.59	5 03
17.44	5	58.1	99.59	13 45
18.25	3	58.2	99.61	3 56
18.33	3	58.2	99.63	14 51
17.78	3	58.4	99.64	4 15
19.23	1	58.4	99.65	8 40
18.51	3	58.4	99.66	2 50
18.17	3	58.5	99.67	3 17
15.23	11	58.5	99.67	6 41
19.02	1	58.5	99.68	1 21
18.79	3	58.5	99.68	10 33
13.18	15	58.5	99.69	12 47

25 prec. + 62ˢ.9, + 5′ 53″

301—360				
Mag.		α 58^{m}	x	$y+10'$
		s	′	′ ″
18.12	3	58.6	99.70	0 09
17.80	3	58.6	99.70	9 33
17.20	5	58.7	99.73	3 12
16.96	7	58.8	99.75	14 09
13.97	14	58.9	99.76	4 26
16.26	10	59.0	99.78	14 13
18.13	3	59.2	99.83	0 03
19.02	1	59.3	99.84	10 02
17.77	3	59.3	99.86	8 15
18.05	3	59.4	99.87	3 11
17.60	3	59.4	99.88	10 55
18.39	3	59.5	99.89	2 15
18.43	3	59.5	99.89	3 20
16.98	8	59.5	99.90	5 18
16.66	9	59.5	99.91	9 38
18.27	3	59.5	99.91	12 29
17.06	7	59.5	99.91	0 02
19.23	1	59.7	99.94	6 27
19.02	1	59.7	99.95	11 24
17.34	5	59.7	99.95	14 01
17.24	4	59.8	99.96	3 22
17.53	4	59.8	99.97	9 35
16.96	7	59.9	99.98	4 33
16.02	10	60.0	0.01	4 43
18.19	2	60.0	0.01	0 03
16.94	8	60.2	0.04	9 01
19.02	1	60.2	0.04	11 45
18.31	3	60.2	0.05	11 07
18.11	3	60.3	0.07	9 35
18.76	2	60.3	0.07	6 19
17.76	3	60.5	0.10	12 14
18.91	1	60.5	0.11	14 58
18.55	3	60.5	0.11	14 39
17.37	5	60.5	0.11	6 45
18.27	3	60.5	0.11	7 09
17.95	3	60.6	0.12	6 05
18.48	3	60.6	0.13	5 20
16.63	10	60.7	0.15	7 12
18.21	3	60.7	0.16	4 21
18.01	3	60.7	0.16	2 11
18.10	3	60.9	0.19	14 55
18.23	3	60.9	0.20	14 27
18.53	2	60.9	0.20	1 03
17.51	3	60.9	0.21	14 31
17.09	5	60.9	0.21	2 47
17.14	6	61.0	0.22	0 17
15.80	10	61.1	0.25	4 52
18.39	3	61.1	0.25	9 44
16.55	10	61.3	0.28	13 21
17.48	3	61.3	0.28	12 03
16.64	10	61.5	0.33	1 04
18.28	3	61.7	0.37	8 58
19.12	1	61.7	0.38	10 32
17.02	6	61.9	0.40	13 53
19.35	1	61.8	0.41	6 24
18.25	2	61.8	0.41	0 32
16.99	6	61.8	0.41	0 03
15.29	10	61.8	0.41	3 49
17.15	5	61.9	0.42	8 59
18.23	3	62.0	0.43	14 41

361—420				
Mag.		α 59^{m}	x	$y+10'$
		s	′	′ ″
17.66	3	2.0	0.45	1 10
19.23	1	2.2	0.48	4 58
18.34	3	2.2	0.48	9 16
19.35	1	2.3	0.50	6 34
18.85	2	2.3	0.51	10 10
18.91	1	2.5	0.54	14 30
18.63	3	2.5	0.54	6 44
18.22	3	2.5	0.55	1 54
15.89	10	2.8	0.60	10 51
18.29	3	2.8	0.61	14 59
18.60	3	2.8	0.61	4 41
17.87	3	2.8	0.61	0 27
19.02	1	2.9	0.63	0 35
19.23	1	2.9	0.64	5 48
17.86	3	3.0	0.65	0 12
18.31	3	3.0	0.66	6 56
15.81	10	3.1	0.67	13 55
18.52	3	3.2	0.69	11 15
18.14	3	3.2	0.69	9 41
17.61	3	3.2	0.70	3 21
18.12	3	3.3	0.72	14 59
17.08	8	3.4	0.74	9 29
16.99	7	3.4	0.74	9 17
17.24	3	3.6	0.78	1 58
16.85	8	3.6	0.79	0 21
18.10	1	3.6	0.79	3 50
18.59	3	3.7	0.80	2 57
18.31	3	3.7	0.81	1 40
18.15	3	3.7	0.81	11 04
18.72	1	3.8	0.83	8 24
18.32	3	3.9	0.85	8 36
18.28	3	4.0	0.87	2 57
18.17	3	4.2	0.90	1 50
18.24	3	4.2	0.90	9 38
16.62	9	4.3	0.92	13 18
12.20	16	4.3	0.92	1 38
14.09	13	4.4	0.94	1 22
17.86	3	4.4	0.96	5 21
18.07	3	4.5	0.98	7 49
16.00	10	4.5	0.98	13 15
15.77	10	4.8	1.04	10 44
15.40	10	4.8	1.04	13 28
16.76	10	5.0	1.08	0 51
18.91	1	5.1	1.10	0 33
18.66	3	5.1	1.11	2 21
18.32	3	5.2	1.13	8 30
16.96	7	5.3	1.15	3 03
17.81	3	5.3	1.16	0 21
16.68	10	5.5	1.18	10 20
15.96	10	5.7	1.23	14 02
18.52	3	5.8	1.25	11 30
17.56	3	5.8	1.26	4 24
17.55	4	5.8	1.26	9 37
18.52	2	5.8	1.27	4 19
15.37	10	5.9	1.28	3 03
17.43	3	5.9	1.29	8 19
19.35	1	5.9	1.29	6 49
18.34	3	6.0	1.30	8 37
18.91	1	6.0	1.31	0 14
18.08	3	6.0	1.31	14 06

421—480				
Mag.		α 59^{m}	x	$y+10'$
		s	′	′ ″
18.91	1	6.1	1.32	5 27
18.25	3	6.1	1.32	1 04
16.34	10	6.1	1.33	4 59
18.48	3	6.3	1.36	8 33
18.98	2	6.3	1.37	6 11
18.69	2	6.4	1.38	6 37
18.22	3	6.4	1.38	8 49
18.03	3	6.4	1.38	9 11
16.75	9	6.4	1.38	10 43
18.76	2	6.5	1.40	5 29
18.91	1	6.7	1.45	0 06
17.96	3	6.7	1.46	0 27
14.62	12	6.8	1.47	8 46
17.66	3	6.8	1.48	2 55
17.21	6	6.9	1.49	5 49
17.30	3	6.9	1.51	14 27
16.86	9	7.0	1.52	0 01
18.09	3	7.1	1.55	2 51
17.99	3	7.3	1.58	1 42
19.35	1	7.3	1.59	7 33
18.45	3	7.5	1.63	1 33
18.47	3	7.6	1.64	8 38
18.06	3	7.6	1.64	6 33
18.05	3	7.6	1.64	6 37
17.05	5	7.6	1.64	14 55
18.37	3	7.6	1.64	13 35
16.66w	2	7.6	1.65	12 31
15.23	10	7.7	1.66	12 10
17.36	4	7.7	1.66	10 00
17.35	5	7.8	1.69	5 09
15.71	10	7.9	1.70	12 21
18.75	3	7.9	1.71	5 33
17.84	3	7.9	1.71	0 44
16.40	10	8.0	1.72	6 16
19.12	1	8.0	1.73	8 25
15.62	10	8.1	1.74	13 17
17.52	3	8.1	1.75	11 32
17.02	8	8.1	1.76	11 57
19.23	1	8.2	1.78	8 39
17.70	3	8.2	1.78	4 22
12.12	14	8.3	1.79	6 48
16.22	10	8.3	1.79	12 16
18.26	3	8.3	1.81	13 30
17.71	3	8.5	1.84	1 02
18.97	2	8.6	1.86	11 23
16.75	9	8.7	1.88	10 13
19.12	1	8.8	1.91	1 21
17.61	3	8.9	1.92	6 24
18.37	3	8.9	1.93	12 15
15.71	10	9.0	1.94	13 59
18.05	3	9.0	1.94	9 08
19.02	1	9.0	1.94	0 49
19.23	1	9.0	1.96	4 10
17.54	4	9.0	1.96	3 35
17.90	3	9.0	1.96	5 31
18.72	2	9.1	1.96	11 30
16.42	10	9.1	1.97	13 28
18.26	3	9.2	1.98	11 53
17.71	3	9.7	2.11	13 00
18.72	2	9.7	2.11	9 07

481—540				
Mag.		α 59^{m}	x	$y+10'$
		s	′	′ ″
17.14	5	10.1	2.20	0 14
18.91	1	10.4	2.24	13 38
18.62	3	10.4	2.25	10 27
18.72	2	10.4	2.26	3 26
16.00	10	10.4	2.26	0 05
13.10	14	10.5	2.29	12 23
17.22	5	10.6	2.30	1 20
16.37	7	10.7	2.33	2 07
18.41	3	10.8	2.34	14 05
17.41	4	10.8	2.35	11 14
15.23	11	10.8	2.35	6 42
17.77	3	10.8	2.35	9 27
18.14	3	10.8	2.35	0 08
17.28	4	11.0	2.38	0 41
17.64	3	11.1	2.40	2 32
19.23	1	11.2	2.42	10 04
16.39	10	11.2	2.42	14 31
16.07	10	11.2	2.43	12 59
19.02	1	11.2	2.43	8 29
19.23	1	11.4	2.46	2 57
19.35	1	11.4	2.47	3 32
17.20	6	11.4	2.47	8 22
16.87	4	11.4	2.47	9 14
16.32	10	11.5	2.48	10 02
17.08	6	11.5	2.48	3 11
18.36	2	11.6	2.50	12 55
18.82	1	11.7	2.52	3 22
17.93	3	11.7	2.52	0 59
18.58	3	11.7	2.53	4 40
17.56	3	11.7	2.53	5 28
17.52	3	11.7	2.53	6 01
16.88	9	11.7	2.53	10 39
18.40	3	11.8	2.54	7 13
18.91	1	11.8	2.56	2 36
19.00	2	11.8	2.56	6 19
18.26	3	12.0	2.59	9 56
18.21	3	12.0	2.60	10 24
18.51	3	12.0	2.60	3 58
18.50	3	12.1	2.62	4 04
16.75	10	12.2	2.64	10 37
16.86	8	12.2	2.64	11 41
17.68	4	12.3	2.66	3 25
18.28	3	12.3	2.67	4 30
12.82	16	12.3	2.67	2 13
16.87	7	12.4	2.68	4 02
18.35	3	12.5	2.70	9 06
19.35	1	12.6	2.72	4 12
13.64	13	12.6	2.73	2 07
17.13	5	12.6	2.73	14 56
18.91	1	12.7	2.74	13 57
18.07	2	12.7	2.74	12 19
18.19	3	12.7	2.75	7 52
18.22	3	12.8	2.76	14 16
17.91	3	12.8	2.77	3 09
17.29	4	12.8	2.78	2 41
18.45	3	12.8	2.78	3 48
16.02	10	13.1	2.82	10 12
19.02	1	13.1	2.82	14 40
13.80	15	13.2	2.86	7 31
18.51	1	13.2	2.86	5 41

541—600				
Mag.		α 59^{m}	x	$y+10'$
		s	′	′ ″
16.88	9	13.2	2.86	3 59
17.22	2	13.2	2.88	5 30
17.98	3	13.4	2.90	10 47
18.29	3	13.4	2.91	4 18
18.41	1	13.5	2.92	5 38
18.38	3	13.5	2.93	14 41
18.91	1	13.6	2.95	11 50
17.27	3	13.7	2.96	0 05
18.21	3	13.8	2.98	1 02
16.82	8	13.8	2.99	6 57
16.62	10	13.9	3.01	5 00
16.88	8	14.0	3.02	2 31
17.11	5	14.1	3.06	1 01
18.46	2	14.2	3.07	3 49
19.45	1	14.2	3.07	6 27
18.11	3	14.3	3.09	3 07
17.99	3	14.3	3.10	9 36
17.78	3	14.3	3.10	6 33
18.21	3	14.5	3.14	4 20
17.07	5	14.6	3.16	12 19
18.49	3	14.8	3.19	10 01
17.86	3	14.7	3.19	5 01
14.92	12	14.7	3.19	6 52
18.31	3	14.9	3.22	8 35
18.43	3	14.9	3.23	6 11
18.05	3	15.0	3.25	8 41
18.32	3	15.1	3.26	9 43
17.24	4	15.2	3.28	1 45
18.03	3	15.3	3.31	10 57
16.28	8	15.3	3.31	14 01
18.55	2	15.3	3.32	1 15
17.40	3	15.3	3.32	6 04
18.36	3	15.4	3.34	9 36
15.37	11	15.4	3.36	4 38
15.18	11	15.5	3.37	7 18
17.37	3	15.6	3.38	11 52
17.92	2	15.6	3.38	12 49
18.23	3	15.7	3.40	11 41
16.75	9	15.7	3.40	12 47
19.35	1	15.7	3.40	4 24
9.45w	6	15.8	3.43	5 38
15.94	10	16.3	3.52	9 25
15.97	10	16.3	3.52	0 11
18.74	2	16.3	3.53	6 13
17.17	6	16.3	3.53	9 42
17.98	3	16.4	3.55	4 06
18.67	2	16.4	3.55	11 02
16.62	9	16.5	3.57	4 09
16.64	10	16.5	3.57	2 33
17.90	3	16.6	3.58	10 44
19.45	1	16.6	3.61	6 07
17.92	3	16.7	3.62	3 06
17.26	6	16.8	3.64	7 03
18.82	1	16.8	3.65	6 16
16.84	8	17.0	3.68	1 26
18.11	3	17.0	3.69	8 59
17.75	3	17.1	3.70	1 44
18.40	3	17.2	3.72	8 02
16.83	8	17.3	3.74	14 17
18.67	2	17.3	3.75	10 25

25 prec. + $62^{s}.9$, + 5′ 53″

601—660				
Mag.		α 59^{m}	x	$y+10'$
		s	′	′ ″
16.25	10	17.3	3.75	7 30
18.49	2	17.4	3.76	9 00
18.29	3	17.4	3.77	12 54
17.42	3	17.4	3.77	4 56
18.51	2	17.5	3.79	13 02
18.00	3	17.5	3.79	12 35
16.76	10	17.6	3.80	9 12
18.37	3	17.6	3.81	14 07
17.07	5	17.7	3.82	0 49
19.02	1	17.8	3.84	13 20
18.56	3	17.8	3.85	10 36
15.75	10	17.8	3.85	1 25
16.93	7	17.8	3.85	3 51
17.21	5	17.8	3.86	8 26
16.50	10	18.1	3.90	11 46
16.66	7	18.2	3.92	14 24
17.38	3	18.1	3.92	6 17
18.58	3	18.2	3.95	0 34
18.10	3	18.3	3.96	14 35
15.70	10	18.4	3.98	5 55
16.39	10	18.4	3.98	3 15
16.71	7	18.5	4.00	0 52
17.78	3	18.5	4.00	0 05
17.85	3	18.7	4.03	6 20
17.59	3	18.7	4.04	5 15
18.54	3	18.7	4.04	10 47
15.71	10	18.7	4.05	8 21
16.78	9	18.7	4.06	1 37
16.47	10	18.8	4.07	1 31
18.13	3	18.9	4.09	9 16
18.34	2	18.9	4.10	6 49
16.38	10	19.0	4.13	5 53
18.41	3	19.2	4.14	13 10
16.59	9	19.1	4.15	4 29
18.48	3	19.2	4.16	8 11
17.41	5	19.2	4.16	14 40
17.27	5	19.2	4.17	2 40
15.40	11	19.4	4.20	14 02
18.29	3	19.4	4.20	7 03
19.45	1	19.4	4.20	6 54
16.98	9	19.5	4.22	8 50
18.84	2	19.5	4.22	2 31
18.91	1	19.7	4.26	13 58
19.23	1	19.7	4.27	8 41
16.59	8	19.7	4.27	4 58
18.13	3	19.8	4.28	5 59
18.28	2	19.8	4.29	11 45
18.03	3	19.8	4.29	14 58
18.40	3	19.9	4.31	2 00
17.77	3	20.0	4.32	7 27
18.47	3	20.1	4.34	5 47
12.44	16	20.1	4.34	11 54
18.02	2	20.1	4.36	4 58
15.59	10	20.2	4.37	0 44
17.11	6	20.2	4.38	0 22
13.93	14	20.3	4.39	13 16
17.24	5	20.3	4.40	4 57
17.45	4	20.3	4.40	6 00
17.53	3	20.3	4.40	6 35
18.21	3	20.4	4.42	3 02

661—720				
Mag.		α 59^{m}	x	$y+10'$
		s	′	′ ″
17.20	5	20.4	4.43	4 19
17.77	3	20.5	4.43	10 30
17.64	4	20.5	4.44	9 04
17.38	5	20.6	4.46	1 39
13.95	13	20.7	4.48	4 12
19.02	1	20.7	4.48	3 27
16.61	10	20.8	4.50	10 02
17.49	3	20.9	4.52	12 37
16.76	9	21.0	4.55	6 49
16.80	9	21.2	4.58	3 30
17.14	6	21.2	4.59	1 06
19.02	1	21.3	4.60	0 47
19.02	1	21.3	4.60	13 14
15.93	10	21.4	4.62	13 50
18.48	3	21.4	4.62	2 22
17.87	3	21.4	4.63	6 12
18.56	2	21.5	4.65	8 14
16.22	10	21.5	4.65	10 03
19.12	1	21.6	4.67	0 24
17.58	4	21.7	4.69	1 05
18.11	3	21.7	4.69	13 18
18.56	3	21.7	4.69	7 34
18.30	3	21.8	4.72	3 41
19.02	1	22.0	4.76	12 04
19.35	1	22.0	4.77	6 04
18.23	3	22.1	4.78	5 03
19.35	1	22.1	4.79	4 33
18.44	3	22.3	4.82	9 55
17.96	3	22.4	4.86	6 44
16.58	10	22.4	4.86	3 11
17.55	3	22.6	4.90	9 50
18.33	3	22.6	4.91	5 43
18.19	3	22.8	4.95	9 58
18.24	3	22.9	4.96	9 56
19.35	1	22.9	4.96	7 06
18.50	3	23.0	4.96	12 06
17.59	3	22.9	4.97	0 18
18.31	3	23.0	4.98	0 44
17.52	3	23.2	5.01	10 50
18.53	3	23.3	5.04	5 11
18.59	3	23.3	5.05	5 35
17.46	3	23.3	5.05	8 15
19.23	1	23.3	5.05	3 27
18.40	3	23.4	5.06	2 26
18.58	2	23.4	5.06	11 54
18.53	3	23.4	5.07	5 52
18.43	2	23.5	5.08	2 38
17.71	3	23.5	5.08	8 10
19.12	1	23.5	5.09	9 51
16.77	8	23.6	5.11	3 21
17.60	4	23.6	5.11	2 42
16.97	7	23.7	5.12	11 17
19.02	1	23.7	5.13	0 26
18.28	3	23.9	5.17	14 09
18.51	2	24.0	5.18	13 06
18.50	3	23.9	5.18	2 34
16.70	9	24.0	5.20	1 58
18.36	2	24.0	5.21	5 56
16.87	7	24.2	5.23	12 22
17.93	3	24.2	5.24	7 53

721—780				
Mag.		α 59^{m}	x	$y+10'$
		s	′	′ ″
17.60	4	24.2	5.24	4 56
18.54	3	24.2	5.24	2 43
17.06	6	24.3	5.27	1 25
17.84	3	24.5	5.30	5 30
18.05	3	24.5	5.31	9 21
15.65	10	24.6	5.33	9 25
16.80	8	24.6	5.33	10 08
17.18	5	24.6	5.33	12 39
16.67	10	24.7	5.35	0 00
17.44	4	24.7	5.36	9 15
16.92	8	24.7	5.36	6 11
18.38	3	24.8	5.37	7 52
19.02	1	25.0	5.40	11 52
16.85	9	24.9	5.41	8 32
18.82	1	25.3	5.46	14 19
18.51	1	25.3	5.48	7 49
17.71	3	25.3	5.49	5 46
16.69	10	25.3	5.49	0 12
17.87	3	25.4	5.50	5 55
16.75	9	25.4	5.50	9 43
12.10	14	25.4	5.51	3 13
16.85	7	25.7	5.54	12 11
17.01	3	25.7	5.55	14 20
18.44	2	25.6	5.55	0 30
19.35	1	25.8	5.59	4 29
18.22	3	26.0	5.60	1 02
19.02	1	25.9	5.61	13 15
16.97	7	26.1	5.62	2 48
15.38	11	26.1	5.65	2 11
17.72	3	26.1	5.65	3 11
17.15	5	26.1	5.65	6 09
18.53	3	26.1	5.66	5 44
18.37	3	26.1	5.66	9 39
16.92	7	26.1	5.66	4 16
16.16	10	26.3	5.69	10 35
18.11	3	26.3	5.69	5 43
15.06	11	26.4	5.71	14 27
18.54	3	26.4	5.72	4 22
16.51	10	26.5	5.74	9 17
16.99	4	26.5	5.75	9 17
18.12	3	26.6	5.76	7 48
18.44	3	26.6	5.76	7 46
18.32	3	26.7	5.76	10 48
18.29	3	26.6	5.77	3 31
17.20	3	26.8	5.79	14 09
17.60	3	26.9	5.80	14 04
18.31	3	26.9	5.81	12 24
18.36	3	26.8	5.81	6 55
17.08	7	27.1	5.86	7 19
18.50	2	27.1	5.86	3 37
17.95	3	27.1	5.87	5 23
18.08	3	27.3	5.89	14 13
18.91	1	27.4	5.92	5 50
18.67	3	27.4	5.92	7 27
18.89	2	27.5	5.95	5 58
18.04	3	27.5	5.95	3 07
19.12	1	27.6	5.97	6 14
18.40	3	27.6	5.98	8 09
18.56	2	27.7	5.99	2 19
15.55	11	27.7	6.00	5 38

781—840				
Mag.		α 59^{m}	x	$y+10'$
		s	′	′ ″
17.10	6	27.8	6.02	6 28
17.75	3	27.9	6.04	7 49
17.32	5	27.9	6.05	0 48
18.30	3	28.0	6.06	5 41
18.22	2	28.0	6.07	2 12
18.08	3	28.1	6.08	8 02
15.75	10	28.1	6.09	6 14
18.46	2	28.2	6.10	4 49
18.43	3	28.2	6.10	9 13
14.82	11	28.3	6.13	14 41
19.02	1	28.5	6.17	11 49
17.55	3	28.6	6.19	12 44
18.46	3	28.6	6.20	8 30
19.12	1	28.8	6.24	1 09
17.76	2	28.9	6.25	12 33
18.82	1	28.9	6.26	5 46
16.71	10	29.1	6.30	8 40
16.75	9	29.2	6.30	12 33
18.50	3	29.1	6.31	7 31
15.26	11	29.2	6.32	7 01
18.52	2	29.3	6.32	11 16
17.96	2	29.3	6.32	13 32
17.70	2	29.3	6.32	13 29
11.45	13	29.4	6.35	13 50
19.23	1	29.5	6.38	7 13
18.35	3	29.6	6.39	11 48
17.06	6	29.6	6.41	10 39
18.52	2	29.7	6.42	1 57
18.60	2	29.7	6.43	1 24
18.32	3	29.8	6.44	0 56
17.53	3	29.8	6.44	12 51
18.27	3	29.8	6.44	9 03
18.34	3	29.9	6.46	14 06
18.23	2	29.9	6.47	1 19
18.13	3	30.0	6.51	9 43
18.91	1	30.2	6.53	13 52
18.41	3	30.1	6.53	3 59
19.23	1	30.2	6.54	6 38
15.33	10	30.2	6.55	0 27
17.45	3	30.3	6.57	4 03
17.95	3	30.5	6.60	8 43
17.08	4	30.6	6.63	2 52
15.75	10	30.8	6.64	10 34
16.22	10	30.8	6.65	10 26
17.84	3	30.7	6.65	4 06
13.88	14	30.8	6.65	13 35
17.81	3	30.8	6.66	10 55
18.38	3	30.8	6.66	9 06
17.24	3	30.8	6.67	5 09
15.13	10	30.9	6.67	13 16
18.56	2	30.9	6.68	7 32
19.12	1	30.9	6.68	7 13
19.02	1	31.1	6.72	0 41
18.12	3	31.1	6.73	10 20
18.18	2	31.1	6.73	9 29
15.00	11	31.2	6.74	0 27
17.95	3	31.2	6.75	5 03
17.02	6	31.3	6.77	12 47
18.20	1	31.3	6.77	13 19
19.02	1	31.3	6.78	12 12

841—900				
Mag.		α 59^{m}	x	$y+10'$
		s	′	′ ″
18.11	3	31.4	6.79	13 22
18.21	3	31.4	6.81	3 54
16.64	10	31.6	6.84	4 24
18.09	3	31.7	6.84	14 03
18.44	3	31.6	6.85	5 51
18.91	1	31.7	6.87	5 20
17.50	4	31.7	6.87	1 09
14.26	13	31.7	6.87	4 12
18.62	3	31.8	6.89	6 44
17.81	3	31.9	6.90	11 37
18.41	1	32.1	6.95	8 31
10.49w	7	32.1	6.96	5 33
18.80	2	32.1	6.96	3 10
18.66	2	32.2	6.97	4 29
18.24	2	32.2	6.98	2 05
18.54	2	32.3	6.98	13 01
16.84	10	32.3	6.99	6 20
16.92	8	32.4	7.00	11 11
18.91	1	32.4	7.00	13 01
16.90	6	32.4	7.02	0 17
18.15	3	32.4	7.03	7 56
16.94	7	32.5	7.03	12 28
18.38	2	32.7	7.08	9 07
16.87	8	32.8	7.10	6 57
17.89	3	32.9	7.10	14 28
17.33	5	32.8	7.11	5 02
18.50	2	33.0	7.12	13 21
17.92	3	32.9	7.13	8 14
18.11	3	32.9	7.13	1 26
18.25	3	33.0	7.14	8 45
18.13	2	33.1	7.15	11 40
15.57	10	33.1	7.16	7 52
17.16	5	33.1	7.17	4 37
18.51	3	33.3	7.21	5 55
14.25	14	33.3	7.21	10 03
17.75	3	33.3	7.21	1 17
16.77	6	33.4	7.22	7 06
17.03	7	33.4	7.22	6 37
15.70	10	33.5	7.24	14 13
19.12	1	33.5	7.25	3 26
18.42	2	33.5	7.25	1 51
17.95	3	33.5	7.26	8 22
16.42	10	33.6	7.26	13 34
17.14	2	33.6	7.26	13 50
18.03	3	33.7	7.30	3 16
19.12	1	33.7	7.31	2 35
18.15	3	33.9	7.33	11 49
18.65	2	34.0	7.35	11 04
15.97	10	34.0	7.35	11 56
17.24	5	33.9	7.35	1 39
18.29	3	34.0	7.36	2 23
16.81	7	34.0	7.36	3 09
18.24	3	34.1	7.36	13 09
17.66	3	34.1	7.36	11 27
18.30	3	34.0	7.37	8 38
16.96	3	34.0	7.37	2 09
19.12	1	34.2	7.40	7 40
16.20	10	34.2	7.40	8 48
14.36	13	34.2	7.41	5 09
18.24	3	34.2	7.41	4 10

25 prec. + $62\overset{\mathrm{s}}{.}9$, + 5′ 54″

901—960

Mag.		α 59^{m}	x	$y+10'$
		s	′	′ ″
18.52	2	34.4	7.45	1 37
19.02	1	34.5	7.46	1 54
17.64	3	34.5	7.46	8 19
18.55	2	34.6	7.48	9 09
19.02	1	34.6	7.48	4 57
17.88	3	34.7	7.49	10 54
13.43	14	34.7	7.50	7 18
16.52	10	34.7	7.51	1 36
17.93	3	34.8	7.52	7 30
16.87	7	34.8	7.52	11 22
18.91	1	34.8	7.53	12 26
19.12	1	34.9	7.55	9 35
18.25	3	34.9	7.55	6 10
19.02	1	34.9	7.56	5 49
17.32	4	35.0	7.57	8 50
18.38	3	35.0	7.58	1 49
15.77	10	35.1	7.60	6 15
15.77	10	35.1	7.61	5 34
18.08	3	35.2	7.62	3 21
16.81	8	35.2	7.63	8 01
18.08	3	35.3	7.65	6 08
18.31	3	35.3	7.65	6 32
18.42	3	35.4	7.65	12 29
18.91	1	35.4	7.65	13 34
14.26	13	35.4	7.65	11 11
16.57	10	35.5	7.67	13 00
18.22	3	35.4	7.67	0 32
17.59	3	35.5	7.68	7 37
17.24	3	35.6	7.68	13 51
16.30	10	35.6	7.68	14 21
18.20	3	35.6	7.71	1 12
15.40	11	35.7	7.73	9 57
18.12	3	35.8	7.74	7 33
17.27	3	36.0	7.78	13 01
18.53	3	35.9	7.79	5 20
18.26	2	36.0	7.80	2 30
18.21	3	36.3	7.84	12 52
18.11	3	36.4	7.86	12 15
15.62	10	36.3	7.87	0 24
18.61	2	36.3	7.87	4 18
17.40	3	36.5	7.91	7 14
18.20	1	36.7	7.93	11 24
15.44	10	36.7	7.94	1 12
17.38	3	36.7	7.95	8 37
17.86	3	36.8	7.96	6 30
18.02	3	36.9	7.99	8 42
18.61	1	37.0	8.00	2 15
18.25	2	37.0	8.01	12 49
19.12	1	37.0	8.01	7 51
18.55	3	37.1	8.02	12 37
18.44	3	37.2	8.06	7 19
18.18	3	37.2	8.06	0 53
17.80	3	37.2	8.06	4 24
17.12:	4	37.3	8.07	6 38
17.01	6	37.3	8.07	9 48
18.84	2	37.3	8.08	5 26
19.12	1	37.3	8.08	4 52
17.46	3	37.5	8.10	10 02
17.78	3	37.4	8.11	9 52
17.43	5	37.5	8.13	2 21

961—1020

Mag.		α 59^{m}	x	$y+10'$
		s	′	′ ″
14.29	12	37.6	8.15	2 12
19.12	1	37.7	8.16	7 28
18.34	2	37.7	8.17	3 58
16.81	8	37.8	8.18	7 22
16.39	10	37.9	8.18	12 00
15.51	9	37.9	8.19	14 17
18.40	3	37.8	8.19	0 39
18.65	3	37.9	8.20	3 43
15.24	10	38.0	8.20	14 00
16.92	8	38.0	8.21	11 48
18.35	3	37.9	8.21	8 50
17.57	3	38.2	8.27	6 37
18.37	3	38.2	8.28	3 48
17.45	5	38.3	8.29	9 17
18.20	1	38.4	8.29	11 58
18.26	3	38.3	8.31	2 28
14.83	12	38.6	8.34	11 20
12.66	16	38.7	8.37	13 43
18.03	3	38.7	8.37	11 58
16.89	5	38.6	8.37	8 28
19.12	1	38.7	8.38	7 00
17.91	3	38.7	8.38	3 09
14.83	12	38.8	8.39	11 52
16.85	7	38.8	8.39	10 08
19.02	1	38.8	8.40	7 12
19.02	1	38.8	8.41	8 44
18.35	3	38.9	8.41	13 03
16.48	9	39.1	8.45	12 50
17.62	3	39.0	8.45	2 55
18.34	3	39.0	8.45	3 18
16.99	7	39.1	8.47	3 32
19.02	1	39.2	8.48	7 20
19.12	1	39.2	8.48	6 32
18.01	3	39.3	8.48	14 49
16.00	10	39.3	8.48	11 20
16.96	6	39.3	8.50	8 41
18.60	2	39.5	8.54	2 59
16.74	10	39.5	8.56	3 37
18.54	2	39.5	8.56	1 55
16.76	10	39.5	8.56	7 47
16.71	10	39.6	8.58	9 15
12.99	16	39.6	8.58	7 06
18.17	3	39.6	8.58	3 54
17.06	6	39.6	8.58	1 13
17.27	5	39.7	8.59	1 03
19.02	1	39.8	8.60	10 37
18.91	1	39.7	8.61	0 01
14.88	11	39.7	8.61	2 29
18.23	3	40.0	8.64	12 40
17.40	3	40.0	8.64	13 37
17.30	5	40.0	8.67	1 15
17.36	4	40.2	8.70	7 51
16.84	8	40.3	8.73	2 19
18.01	3	40.4	8.75	1 36
19.12?	1	40.4	8.75	6 07
18.20	2	40.5	8.76	1 30
18.21	3	40.6	8.78	14 20
17.94	3	40.6	8.79	2 41
19.02	1	40.7	8.80	7 37
18.78	2	40.7	8.80	6 42

1021—1080

Mag.		α 59^{m}	x	$y+10'$
		s	′	′ ″
17.19	6	40.7	8.81	7 28
18.22	3	40.8	8.82	9 36
18.60	2	40.8	8.83	1 01
18.82	2	40.9	8.84	6 33
16.06	10	40.9	8.86	2 57
17.24	6	40.9	8.86	3 43
18.24	3	41.0	8.86	14 40
16.21	10	41.1	8.88	10 04
18.91	1	41.0	8.88	2 16
17.33	3	41.1	8.90	2 20
18.42	2	41.1	8.90	4 34
16.87	8	41.2	8.93	9 45
18.52	3	41.3	8.94	8 22
18.42	3	41.5	8.97	10 47
16.92	7	41.6	8.99	13 06
19.02	1	41.6	9.01	7 07
14.61	12	41.6	9.01	3 59
18.00	3	41.6	9.01	4 14
18.02	2	41.8	9.03	14 16
18.16	3	41.9	9.04	12 05
17.33	3	41.9	9.07	6 29
16.87	6	42.0	9.08	14 19
17.82	3	42.1	9.11	13 10
17.20	4	42.0	9.11	2 54
18.33	3	42.4	9.18	4 11
17.73	3	42.4	9.18	9 29
17.37	6	42.5	9.20	5 22
16.54	9	42.8	9.25	10 26
18.91	1	43.0	9.28	12 29
16.37	10	42.9	9.28	4 55
17.52	3	43.2	9.32	13 12
16.67	9	43.5	9.40	11 19
17.77	3	43.6	9.43	12 24
18.54	2	43.7	9.45	13 35
17.23	3	43.8	9.46	13 44
16.88	8	43.7	9.46	1 59
17.74	3	43.9	9.48	12 56
16.72	8	44.5	9.62	13 16
18.37	3	44.5	9.63	9 22
16.91	8	44.6	9.65	3 14
18.23	3	44.6	9.65	12 54
18.40	2	44.7	9.66	11 56
18.22	2	44.7	9.67	2 18
17.97	3	44.8	9.68	14 57
18.39	3	44.8	9.70	6 09
17.52	3	45.1	9.74	13 17
17.29	3	45.1	9.74	13 12
17.60	3	45.0	9.75	7 32
17.25	5	45.0	9.75	0 25
17.02	6	45.1	9.76	1 40
18.31	2	45.3	9.78	11 55
18.14	3	45.3	9.78	13 08
18.10	3	45.3	9.80	9 15
17.62	3	45.4	9.81	10 33
17.90	3	45.8	9.89	12 44
18.91	1	45.7	9.89	9 56
18.32	2	45.7	9.89	6 50
15.30	10	45.8	9.91	13 11
18.32	3	45.8	9.92	4 49
18.63	2	45.9	9.93	13 43

1081—1140

Mag.		α 59^{m}	x	$y+10'$
		s	′	′ ″
17.69	3	45.9	9.93	11 02
16.19	10	45.9	9.95	2 27
15.42	10	46.1	9.96	11 45
17.78d	1	46.1	9.96	11 55
18.03	3	46.0	9.97	6 37
19.02	1	46.1	9.99	7 55
17.47	3	46.4	10.03	10 22
17.39	5	46.3	10.03	3 33
16.50	9	46.6	10.07	13 54
18.27	3	46.6	10.09	3 31
18.35	3	46.8	10.12	3 47
18.46	2	46.9	10.13	10 16
16.07	9	46.9	10.14	0 30
18.04	2	46.9	10.15	1 26
18.48	2	47.1	10.17	14 30
18.02	2	47.1	10.18	14 38
17.76	3	47.1	10.21	6 55
18.33	3	47.2	10.23	4 31
18.72	1	47.5	10.26	14 35
16.94	8	47.4	10.27	1 58
17.78*	1	47.6	10.28	12 44
18.17	3	47.7	10.30	10 25
16.47	9	47.7	10.30	12 00
15.89	10	47.6	10.31	2 43
18.23	3	47.8	10.33	14 40
18.31	1	47.9	10.34	12 45
16.94	7	47.8	10.34	7 07
18.10	3	47.9	10.35	12 15
17.87	3	48.0	10.37	14 06
16.18	10	47.9	10.37	5 39
18.16	3	47.9	10.38	0 55
18.03	3	48.0	10.41	1 48
16.13	10	48.1	10.42	1 41
18.09	3	48.3	10.43	14 41
18.10	3	48.4	10.45	11 29
16.31	10	48.4	10.46	11 00
16.65	8	48.5	10.48	10 25
18.35	3	48.4	10.48	3 26
18.14	3	48.4	10.48	5 10
18.91	1	48.5	10.50	9 31
17.62	3	48.5	10.50	2 11
18.13	3	48.5	10.51	3 45
16.52	10	48.7	10.52	10 31
18.05	3	48.7	10.52	10 06
16.02	10	48.6	10.53	8 46
18.16	3	48.8	10.56	9 54
17.87	3	48.9	10.56	13 54
16.86	6	48.8	10.57	1 03
18.42	2	48.9	10.58	3 06
16.12	10	49.0	10.59	10 11
18.82	1	49.2	10.62	12 35
18.91	1	49.2	10.64	9 52
16.92	7	49.2	10.64	6 34
18.30	3	49.2	10.66	9 47
17.64	3	49.2	10.66	5 17
17.09	6	49.2	10.66	6 07
16.88	8	49.2	10.66	2 14
17.22	5	49.3	10.67	1 00
18.05	3	49.3	10.68	2 41
17.83	3	49.4	10.70	9 26

1141—1156

Mag.		α 59^{m}	x	$y+10'$
		s	′	′ ″
19.02	1	49.6	10.75	5 42
17.75	3	49.6	10.75	2 08
18.18	2	49.8	10.76	12 02
15.73	10	49.7	10.77	3 14
17.17	5	49.9	10.78	10 12
18.22	2	50.1	10.83	10 43
15.89	10	50.1	10.84	1 16
17.75	3	50.2	10.86	6 37
18.02	2	50.3	10.86	12 30
17.74	3	50.2	10.87	9 26
18.91	1	50.5	10.93	5 17
17.89*	1	50.6	10.95	7 42
17.37	5	50.6	10.95	8 19
18.72	2	50.6	10.95	2 21
18.49	3	50.7	10.96	12 25
17.05	1	50.7	10.97	7 44

25 prec. + $62^{\mathrm{s}}.9$, + 5′ 54″

1s—60s					61s—120s					121s—180s					181s—240s					241s—300s				
Mag.		α 58^m	x	$y+10'$	Mag.		α 58^m	x	$\frac{y+70'}{y+10'}$	Mag.		α 58^m	x	$\frac{y+70'}{y+10'}$	Mag.		α 58^m	x	$\frac{y+70'}{y+10'}$	Mag.		α 59^m	x	$\frac{y+70'}{y+10'}$
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
17.41	2	23	92.1	4.8	18.28	2	32	94.0	10.2	13.16	13	38	95.3	2.0	18.21	2	52	98.2	59.2	17.88	2	6	1.3	56.9
17.66	2	23	92.1	6.0	18.31	2	32	94.0	10.4	15.95	8	38	95.3	5.6	13.97:	11	52	98.3	56.7	16.67	7	6	1.4	55.8
17.70	2	24	92.3	5.8	16.41	8	33	94.1	0.2	17.03	7	38	95.3	6.2	17.93	2	52	98.3	15.4	18.45	2	6	1.4	15.1
18.28	2	24	92.3	6.2	18.29	2	33	94.1	3.6	16.81	5	38	95.3	6.4	17.25	4	53	98.4	59.0	17.30	2	7	1.6	55.4
18.33	2	25	92.4	4.6	17.96	2	33	94.1	5.6	15.66	8	38	95.3	6.6	17.39	2	53	98.4	0.0	15.52	8	7	1.6	15.2
18.04	2	25	92.4	6.6	16.25	8	33	94.1	5.7	15.96	8	38	95.3	7.4	15.69	8	53	98.4	15.7	12.66	14	9	1.8	56.0
18.17	2	25	92.4	8.9	17.80	2	33	94.1	7.3	18.16	2	38	95.3	9.6	16.42	8	53	98.4	15.8	16.95	7	8	1.8	58.7
18.34	2	25	92.5	5.6	18.36	2	33	94.2	0.6	17.66	2	39	95.4	58.3	17.08	3	53	98.6	55.9	15.98	8	8	1.8	59.9
16.22	8	25	92.5	6.1	15.45	8	33	94.2	1.4	17.10	4	39	95.4	58.9	18.16	2	55	99.0	55.7	18.10	2	9	2.0	58.8
18.18	2	25	92.5	8.6	18.17	2	33	94.2	4.2	16.80	5	39	95.4	0.8	17.78	2	55	99.0	57.3	17.05	4	10	2.0	15.6
13.78	9	26	92.6	3.5	16.84	7	33	94.2	7.3	14.82	10	39	95.4	5.2	18.20	2	55	99.0	15.2	17.72	2	10	2.1	57.5
16.56	8	26	92.6	6.2	16.40	8	34	94.3	9.9	18.02	2	39	95.4	8.6	18.32	2	56	99.1	59.0	18.36	2	10	2.2	57.5
18.24	2	26	92.6	6.8	18.38	2	34	94.4	0.1	17.39	2	39	95.4	10.2	15.67	8	56	99.1	59.9	18.51	2	10	2.2	57.7
17.68	2	26	92.6	8.4	18.14	2	34	94.4	0.6	17.74	2	38	95.4	12.0	18.20	2	57	99.2	55.8	16.55	8	10	2.2	58.4
16.39	8	26	92.7	8.6	17.74	2	34	94.4	1.4	16.79	7	39	95.4	13.2	17.47	2	57	99.2	55.9	16.31	8	10	2.2	58.8
17.77	2	27	92.8	8.2	15.17	9	34	94.4	3.4	18.37	2	39	95.5	6.8	17.70	2	57	99.2	58.6	16.96	5	11	2.3	55.9
14.52	11	27	92.9	6.7	17.16	4	34	94.4	5.9	16.90	5	39	95.5	10.4	18.28	2	56	99.2	15.4	18.40	2	11	2.3	58.7
18.06	2	27	93.0	1.4	17.88	2	34	94.4	7.0	17.30	2	40	95.6	58.6	12.83	13	57	99.3	15.6	16.71	7	11	2.3	16.4
18.32	2	28	93.0	5.0	16.04	8	34	94.4	10.1	16.74	7	40	95.6	59.4	17.16	5	57	99.4	57.6	17.37	2	11	2.4	55.0
15.88	8	28	93.1	1.8	18.28	2	35	94.5	4.5	16.66	8	40	95.6	0.0	17.28	2	57	99.4	15.6	14.79	10	11	2.4	58.0
16.28	8	28	93.1	2.8	16.82	5	35	94.5	11.1	18.45	2	40	95.6	0.6	18.31	2	57	99.4	16.2	16.19	8	12	2.5	57.9
18.16	2	28	93.1	4.9	18.06	2	35	94.5	12.7	18.34	2	39	95.6	3.6	15.86	8	58	99.5	58.2	17.54	2	12	2.6	54.6
17.28	2	28	93.1	9.4	16.83	6	35	94.6	59.4	18.20	2	40	95.6	5.4	17.79	2	58	99.6	56.2	15.19	9	12	2.6	56.4
17.68	2	29	93.2	5.1	17.90	2	35	94.6	2.3	17.06	2	40	95.6	7.7	17.20	4	58	99.6	58.1	16.70	8	12	2.6	58.2
15.94	8	29	93.2	6.0	17.88	2	35	94.6	2.9	17.46	2	40	95.6	8.8	17.35	2	58	99.6	59.2	13.49	11	12	2.6	15.8
16.87	5	29	93.2	10.4	15.23	9	35	94.6	4.6	17.43	2	40	95.7	11.4	18.21	2	58	99.6	16.3	16.83	5	13	2.8	56.2
17.24	2	29	93.3	3.5	17.21	4	35	94.6	6.0	18.17	2	40	95.8	58.6	17.49	2	59	99.8	55.4	18.08	2	13	2.8	15.4
17.76	2	29	93.3	4.6	17.62	2	35	94.6	7.4	18.45	2	41	95.8	2.6	18.36	2	59	99.8	57.5	18.02	2	13	2.9	56.3
18.34	2	29	93.3	5.6	17.09	3	35	94.6	7.9	15.93	8	40	95.8	3.3	18.35	2	59	99.8	58.4	17.90	2	13	2.9	57.8
18.36	2	29	93.3	5.8	18.10	2	35	94.6	10.4	16.63	8	40	95.8	5.9	16.57	7	59	99.8	58.6	17.29	4	13	2.9	58.2
17.56	2	29	93.3	9.4	17.23	2	35	94.6	10.8	18.38	2	40	95.8	11.0	18.26	2	59	99.8	59.6	15.84	8	13	2.9	16.8
18.24	2	29	93.3	11.0	17.04	3	35	94.6	11.1	18.45	2	41	95.9	6.2	16.56	8	59	99.8	15.1	16.58	6	14	3.0	56.4
17.70	2	29	93.4	2.2	17.42	2	35	94.6	12.4	18.18	2	41	95.9	6.3	18.37	2	60	99.9	16.2	18.12	2	14	3.0	56.9
18.26	2	29	93.4	3.2	17.12	3	35	94.6	12.7	18.28	2	41	96.0	7.2	16.80	5	60	0.0	56.4	17.36	4	14	3.0	58.6
16.40	8	30	93.4	3.4	15.95	8	36	94.7	0.9	17.93	2	41	96.0	11.0	16.70	7	60	0.0	58.2	13.06	14	14	3.0	59.2
17.54	2	29	93.4	5.4	18.34	2	36	94.8	59.4	17.15	4	43	96.2	58.3	15.60	9	60	0.1	56.7	13.46	12	14	3.0	15.4
15.37	8	30	93.4	6.6	17.04	4	36	94.8	1.4	17.80	2	42	96.2	59.0	16.46	8	60	0.1	57.5	17.86	2	14	3.1	54.8
14.90	9	29	93.4	9.7	16.90	6	36	94.8	3.4	16.09	8	42	96.2	59.4	18.14	2	60	0.1	58.0	17.62	2	14	3.1	55.6
15.93	8	29	93.4	10.4	18.18	2	36	94.8	3.6	17.89	2	43	96.2	59.7	17.30	2	60	0.1	59.5	17.72	2	14	3.1	56.0
17.39	2	30	93.6	0.7	17.09	5	36	94.8	6.4	17.86	2	44	96.5	57.6	18.27	2	60	0.1	16.2	17.73	2	14	3.1	58.0
16.40	8	30	93.6	2.0	16.92	2	36	94.8	7.4	16.78	3	44	96.6	57.0	18.11	2	61	0.2	58.0	14.86	10	14	3.1	58.9
16.18	8	30	93.6	3.0	18.46	2	36	94.8	10.4	16.63	6	44	96.6	58.6	17.31	4	62	0.4	59.6	18.24	2	14	3.1	59.9
17.39	2	30	93.6	5.4	17.10	4	36	94.9	58.2	16.70	7	44	96.6	59.6	17.93	2	62	0.4	16.6	14.51	10	14	3.1	15.1
18.04	2	30	93.6	6.2	17.28	2	36	94.9	2.4	17.64	2	44	96.6	59.8	16.91	3	62	0.5	55.0	14.70	10	15	3.2	15.3
15.62	8	30	93.6	7.4	18.36	2	36	94.9	2.9	18.00	2	46	96.9	59.4	17.16	4	62	0.5	58.6	16.59	8	15	3.2	16.2
17.82	2	30	93.6	9.9	17.10	4	36	94.9	9.4	16.68	7	47	97.1	56.6	18.11	2	63	0.7	58.7	17.76	2	16	3.4	55.3
18.18	2	30	93.6	10.0	16.23	8	36	94.9	11.8	13.64	12	47	97.1	58.0	16.52	7	63	0.8	56.4	17.02	2	16	3.4	15.2
17.77	2	30	93.6	10.4	17.80	2	37	95.0	3.3	15.26	9	47	97.1	58.4	16.78	6	64	0.8	16.2	17.56	2	16	3.4	15.6
16.70	6	31	93.7	11.4	17.41	2	37	95.0	4.4	16.70	5	47	97.2	58.6	15.52	8	64	0.8	16.4	17.84	2	16	3.4	16.9
17.02	4	31	93.8	0.4	18.30	2	37	95.1	59.4	15.88	8	48	97.4	58.9	17.74	2	64	0.9	56.8	17.96	2	16	3.5	56.6
16.87	5	31	93.8	2.2	18.18	2	37	95.1	0.4	17.98	2	49	97.6	56.8	15.87	8	64	0.9	15.5	18.46	2	17	3.6	56.9
16.00	8	32	93.8	10.4	17.74	2	37	95.1	3.2	15.66	8	49	97.6	56.9	15.88	8	65	1.0	55.7	18.22	2	16	3.6	16.0
15.94	8	31	93.8	10.8	17.72	2	37	95.1	4.7	18.42	2	49	97.6	59.0	16.93	5	65	1.1	56.7	17.94	2	17	3.7	57.7
16.11	8	32	93.8	11.4	17.06	3	37	95.1	8.2	17.68	2	49	97.6	15.4	18.42	2	65	1.1	58.7	16.83	7	17	3.7	59.1
17.79	2	32	93.9	0.4	13.66	12	37	95.1	11.6	18.32	2	50	97.9	56.4	16.76	7	65	1.1	58.8	18.36	2	18	3.8	55.1
16.36	8	32	93.9	11.9	16.67	8	37	95.1	12.1	16.50	8	50	97.9	59.3	16.66	7	65	1.1	59.4	15.33	9	17	3.8	55.4
18.17	2	32	94.0	1.8	17.97	2	38	95.2	2.6	15.33	8	50	97.9	59.5	17.98	2	65	1.1	59.9	18.27	2	17	3.8	57.0
18.04	2	32	94.0	5.4	18.24	2	38	95.2	4.2	16.31	8	51	98.0	57.4	15.68	8	65	1.1	15.2	18.09	2	18	3.8	58.4
16.67	8	32	94.0	9.4	16.77	7	38	95.2	5.4	18.06	2	51	98.0	15.4	18.55	2	66	1.2	59.2	15.09	9	18	3.8	59.6
18.13	2	32	94.0	10.0	17.78	2	38	95.2	11.7	17.92	2	51	98.1	57.2	17.32	2	66	1.2	15.6	17.86	2	18	3.8	16.2

25 prec. + $62^s.9$, + 5′ 53″

301s—360s				
Mag.		α 59^{m}	x	$y+70'$ / $y+10'$
		s	′	′
17.04	2	17	3.8	17.0
17.12	2	18	3.9	15.5
18.02	2	18	3.9	15.6
18.08	2	18	4.0	57.2
18.41	2	18	4.0	58.2
17.11	5	19	4.1	58.2
17.95	2	19	4.1	15.8
16.76	6	19	4.1	17.0
17.84	2	19	4.2	54.9
16.91	5	20	4.2	56.2
18.04	2	19	4.2	56.4
15.13	9	19	4.2	56.5
18.52	2	20	4.2	56.9
17.78	2	19	4.2	57.8
18.32	2	19	4.2	58.9
18.28	2	19	4.2	16.1
17.11	5	20	4.3	56.1
17.93	2	20	4.3	59.0
17.86	2	20	4.4	54.6
17.86	2	21	4.4	55.0
17.82	2	21	4.4	59.3
17.09	2	20	4.4	15.4
17.09	4	21	4.6	55.4
18.08	2	21	4.6	56.0
16.16	7	21	4.6	56.6
17.76	2	22	4.6	57.1
18.36	2	22	4.6	15.2
17.86	2	22	4.6	16.2
17.83	2	22	4.7	58.4
16.15	8	22	4.8	15.6
17.06	5	23	4.9	55.9
18.34	2	23	4.9	57.0
16.18	8	23	4.9	59.6
17.74	2	23	5.0	55.6
16.66	8	23	5.0	59.4
15.87	8	24	5.1	57.2
18.18	2	24	5.1	57.6
15.66	8	24	5.1	15.4
18.30	2	24	5.2	55.2
18.29	2	24	5.2	59.6
17.14	4	24	5.3	54.4
17.18	4	24	5.3	58.9
16.45	8	24	5.3	59.4
15.32	9	25	5.3	16.4
17.92	2	25	5.4	57.5
18.26	2	25	5.4	58.4
17.85	2	25	5.4	59.8
16.92	7	26	5.6	58.4
17.05	5	26	5.6	59.4
18.40	2	26	5.6	59.8
14.02	11	26	5.6	15.4
16.23	8	27	5.8	54.8
17.43	4	27	5.8	58.9
18.45	2	27	5.9	59.4
17.96	2	28	6.0	16.6
18.38	2	28	6.1	57.4
16.46	8	28	6.1	15.9
17.52	2	29	6.2	57.2
15.97	8	29	6.2	57.4
16.67	8	29	6.2	59.2

361s—420s				
Mag.		α 59^{m}	x	$y+70'$ / $y+10'$
		s	′	′
16.47	8	29	6.2	15.6
18.55	2	30	6.4	59.3
18.27	2	30	6.5	15.9
16.78	7	30	6.6	55.4
18.02	2	30	6.6	56.6
17.73	2	31	6.6	57.7
17.34	2	31	6.6	15.9
17.26	2	31	6.8	57.2
15.80	8	31	6.8	58.6
16.67	7	32	6.9	55.6
18.04	2	32	6.9	56.9
17.37	2	32	6.9	57.4
17.78	2	32	6.9	59.0
17.41	2	32	6.9	15.4
14.18	11	32	7.0	0.0
17.83	2	33	7.0	15.1
15.37	8	33	7.1	56.2
17.16	5	33	7.1	59.6
17.03	4	33	7.1	15.9
18.32	2	33	7.2	56.4
18.35	2	33	7.2	57.3
15.24	9	33	7.2	57.4
16.44	8	34	7.3	55.6
15.34	9	34	7.3	59.9
16.52	8	34	7.4	55.2
18.28	2	34	7.4	15.4
17.09	2	34	7.4	15.8
16.68	6	34	7.4	16.4
17.83	2	35	7.5	58.8
18.28	2	35	7.6	56.0
17.36	2	35	7.6	57.6
18.36	2	35	7.6	59.8
14.95	9	35	7.6	15.6
17.68	2	36	7.7	57.9
17.24	2	36	7.8	56.2
14.57	10	36	7.8	57.2
16.58	7	36	7.9	57.2
17.90	2	37	7.9	15.4
18.34	2	37	7.9	15.5
14.71	9	37	8.0	55.8
16.90	4	37	8.0	16.0
16.65	8	37	8.1	15.2
18.38	2	38	8.3	55.9
18.30	2	38	8.3	56.5
18.16	2	38	8.3	56.6
18.06	2	38	8.3	56.7
17.58	2	38	8.3	57.8
16.76	5	38	8.3	59.6
17.98	2	39	8.4	55.9
16.81	7	39	8.5	59.0
16.97	5	39	8.6	56.6
18.32	2	40	8.6	57.4
11.54	9	39	8.6	59.4
12.62	14	40	8.7	57.6
15.29	9	41	8.8	15.4
17.81	2	41	8.9	56.2
17.90	2	41	8.9	56.7
18.36	2	41	8.9	15.1
15.79	8	42	9.0	57.7
16.60	8	42	9.0	58.6

421s—480s				
Mag.		α 59^{m}	x	$y+70'$ / $y+10'$
		s	′	′
16.48	8	42	9.0	59.9
15.85	8	42	9.1	55.8
18.03	2	43	9.2	57.6
16.00	8	43	9.2	58.0
16.65	7	42	9.2	58.1
16.27	8	42	9.2	59.4
17.24	2	44	9.5	56.4
17.31	2	45	9.6	56.4
17.14	5	44	9.6	58.2
16.10	8	44	9.6	58.8
18.11	2	44	9.6	59.8
18.20	2	45	9.8	57.6
16.79	5	45	9.8	58.0
17.72	2	46	9.9	0.0
17.66	2	46	10.0	58.7
17.72	2	46	10.0	58.9
17.90	2	47	10.1	57.0
13.53	11	47	10.1	57.4
17.84	2	47	10.2	56.7
18.22	2	48	10.3	58.2
18.26	2	48	10.4	58.4
16.98	3	50	10.8	59.2
18.20	2	50	10.9	57.5
17.49	2	51	11.0	58.8
17.02	5	51	11.0	59.2
16.74	8	51	11.0	5.4
15.45	8	51	11.0	5.9
14.42	10	51	11.1	58.6
17.40	2	51	11.1	1.4
18.26	2	51	11.1	2.2
18.16	2	51	11.1	5.2
17.52	2	51	11.1	5.6
16.49	8	51	11.1	8.2
14.57	10	51	11.1	8.3
15.71	8	51	11.1	10.2
15.90	8	51	11.1	12.5
17.62	2	52	11.2	57.6
16.53	8	52	11.2	59.0
16.60	7	52	11.2	0.6
17.54	2	52	11.2	2.4
17.45	4	52	11.2	5.0
18.08	2	52	11.2	5.5
18.17	2	52	11.2	6.2
18.34	2	52	11.2	8.8
17.52	2	52	11.2	11.0
16.75	8	52	11.3	4.4
18.30	2	52	11.3	9.2
18.32	2	53	11.4	1.4
18.26	2	53	11.4	4.2
16.01	8	53	11.4	5.2
18.34	2	52	11.4	5.3
17.86	2	53	11.4	13.2
17.29	2	53	11.5	1.6
17.92	2	53	11.5	4.8
18.43	2	53	11.5	9.2
17.82	2	54	11.6	0.0
16.66	7	54	11.6	0.8
16.64	5	54	11.6	1.7
18.40	2	54	11.6	4.2
18.34	2	54	11.6	7.6

481s—540s				
Mag.		α 59^{m}	x	$y+70'$ / $y+10'$
		s	′	′
17.20	4	53	11.6	9.0
16.64	7	54	11.6	12.4
16.54	8	54	11.7	8.8
18.35	2	54	11.7	11.8
16.80	7	54	11.7	12.7
17.94	2	54	11.7	12.8
17.98	2	54	11.7	12.9
17.92	2	54	11.8	58.2
18.06	2	54	11.8	58.4
16.14	8	54	11.8	59.9
17.68	2	54	11.8	1.4
17.43	2	55	11.8	2.4
17.04	5	54	11.8	3.2
17.78	2	54	11.8	4.6
17.04	4	54	11.8	5.3
18.38	2	55	11.8	5.4
18.30	2	55	11.8	11.6
18.32	2	55	11.8	12.8
17.70	2	55	11.9	58.5
18.38	2	55	11.9	3.8
14.16	12	55	11.9	5.6
17.19	4	55	11.9	5.9
15.57	8	55	11.9	6.2
17.83	2	55	11.9	9.3
18.38	2	55	11.9	9.4
17.64	2	55	11.9	12.2
18.26	2	55	11.9	13.0
15.73	8	55	11.9	13.1
16.90	5	55	11.9	13.3
17.68	2	55	12.0	58.9
16.00	8	55	12.0	4.4
18.10	2	55	12.0	5.6
17.16	4	55	12.0	7.8
18.32	2	55	12.0	8.0
16.61	8	56	12.1	2.4
16.37	8	56	12.1	3.4
18.35	2	56	12.1	4.4
18.32	2	56	12.1	6.7
16.27	8	56	12.1	8.6
15.82	8	56	12.1	12.6
17.12	2	56	12.2	59.4
18.37	2	56	12.2	1.4
18.08	2	56	12.2	11.4
18.22	2	57	12.3	59.0
18.05	2	57	12.3	0.9
17.26	3	57	12.3	2.9
17.58	2	57	12.3	12.0
18.16	2	57	12.4	1.3
17.76	2	57	12.4	2.4
15.24	9	57	12.4	8.6
16.12	8	57	12.4	9.2
15.15	9	58	12.5	11.0
17.68	2	58	12.6	59.4
14.96	9	58	12.6	1.6
17.38	2	58	12.6	3.9
17.80	2	58	12.6	4.2
15.63	8	58	12.6	8.6
17.28	2	58	12.6	11.2
18.20	2	58	12.6	12.4
16.95	5	59	12.7	1.4

541s—600s				
Mag.		α 59^{m}	x	$y+10'$
		s	′	′
17.51	2	59	12.7	7.0
16.80	5	59	12.7	10.6
17.22	2	59	12.8	6.6
17.50	2	59	12.8	8.4
16.66	6	59	12.8	11.2
16.81	5	59	12.8	11.6
16.49	8	60	12.9	0.2
17.54	2	60	12.9	6.2
15.72	8	60	12.9	8.8
17.37	2	60	12.9	10.3
16.96	5	60	12.9	10.4
14.12	10	60	13.0	0.6
17.14	4	60	13.0	5.2
15.41	9	60	13.0	5.4
16.14	8	60	13.0	7.1
18.10	2	60	13.0	11.4
17.00	4	61	13.1	1.4
18.14	2	61	13.1	4.1
17.76	2	61	13.1	5.4
18.12	2	61	13.1	8.1
18.12	2	61	13.2	6.4
18.02	2	61	13.2	9.8
16.20	8	61	13.3	0.2
17.64	2	61	13.3	3.0
16.90	3	62	13.3	11.0
18.28	2	62	13.4	1.0
18.38	2	62	13.4	1.4
15.89	8	62	13.4	8.6
17.12	2	62	13.4	11.4
16.32	8	62	13.5	0.4
16.68	6	62	13.5	3.2
14.17	10	62	13.5	6.5
16.61	6	63	13.6	3.0
17.70	2	63	13.6	4.6
16.57	8	63	13.6	6.4
16.34	8	63	13.6	10.1
16.07	8	64	13.8	6.2
16.80	5	64	13.8	6.6
17.00	2	64	13.8	9.4
17.35	2	64	13.9	2.0
18.14	2	64	13.9	3.9
17.60	2	64	13.9	6.7
18.02	2	64	13.9	9.4
16.52	8	65	14.0	6.3
17.66	2	65	14.1	3.3
13.35	10	65	14.1	4.6
18.22	2	65	14.1	5.9
17.84	2	66	14.2	3.7
16.55	8	66	14.2	4.6
17.60	2	66	14.2	6.9
14.26	10	66	14.2	7.2
18.31	2	66	14.2	8.6
12.66	12	66	14.2	8.9
17.56	2	67	14.5	2.9
14.13	10	67	14.5	7.8
17.60	2	68	14.6	4.4
17.06	4	68	14.6	5.4
17.04	2	68	14.6	7.4
17.46	2	67	14.6	7.6
14.42	10	68	14.8	5.4

25 prec. + $62^{s}.9$, + 5′ 54″

Area 66. Center for 1900: 21$^{\mathrm{h}}$ 58$^{\mathrm{m}}$ + 30° 10′ (15′ × 15′)

1—60					61—120					121—180					181—240					241—300				
Mag.		α 57^{m}	x	$y+10'$	Mag.		α 58^{m}	x	$y+10'$	Mag.		α 58^{m}	x	$y+10'$	Mag.		α 58^{m}	x	$y+10'$	Mag.		α 58^{m}	x	$y+10'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
14.48	14	46.2	97.02	13 10	18.23	3	0.1	0.02	12 20	17.45	7	10.9	2.36	9 25	10.10w	7	21.2	4.58	8 06	16.02	9	33.7	7.29	10 00
16.04	9	46.5	97.09	11 17	17.55	2	0.4	0.09	14 54	18.44	2	10.9	2.37	3 59	18.19	3	21.3	4.60	2 33	18.33	3	34.0	7.37	5 11
17.33	7	46.8	97.15	7 20	17.98	3	0.8	0.18	3 20	18.90	1	11.1	2.40	6 21	16.60	9	21.5	4.64	5 09	16.26	9	34.2	7.41	0 14
13.08	14	46.9	97.17	2 46	18.21	3	1.1	0.24	13 23	18.16	3	11.2	2.42	4 18	16.57	9	21.6	4.67	8 29	14.11	16	34.8	7.53	12 42
18.15	3	47.0	97.18	3 20	18.10	3	1.3	0.28	0 49	14.94	13	11.5	2.48	5 38	15.71	11	21.7	4.68	11 25	17.47	7	35.3	7.62	13 31
17.13	7	47.5	97.31	1 31	15.88	9	1.6	0.35	1 11	18.02	5	11.8	2.55	12 33	18.37	3	21.7	4.71	9 50	18.30	2	35.3	7.64	1 58
18.10	3	47.8	97.37	3 49	16.17	10	1.7	0.37	14 11	17.22	7	11.8	2.55	0 39	15.54	12	22.0	4.76	6 43	17.45	7	35.4	7.67	5 56
18.42	3	47.8	97.37	7 22	17.48	7	1.8	0.40	8 08	15.98	9	12.0	2.59	8 38	18.40	2	22.2	4.81	4 56	17.76	5	35.6	7.70	0 14
18.09	3	48.0	97.41	8 53	14.49	14	2.4	0.52	14 58	15.39	10	12.0	2.61	10 15	17.42	7	22.3	4.82	13 17	17.53	7	35.9	7.78	6 24
18.10	3	48.1	97.43	11 24	17.11	6	2.4	0.53	8 29	17.43	7	12.2	2.64	13 15	18.24	2	22.4	4.85	12 19	17.11	7	36.2	7.84	2 31
18.23	3	48.2	97.46	7 51	17.58	7	2.4	0.53	3 57	15.58	12	12.4	2.69	2 51	14.22	16	22.6	4.89	0 47	18.00	3	36.8	7.95	10 24
17.58	5	48.3	97.48	10 27	14.66	11	2.5	0.55	11 58	17.93	3	13.5	2.92	0 39	15.64	12	23.0	4.98	6 16	18.04	3	36.9	7.97	12 21
15.95	10	48.4	97.50	5 32	15.03	13	2.6	0.57	8 16	18.70	2	14.0	3.03	10 49	15.82	11	23.3	5.04	6 25	17.56	7	36.9	7.98	3 06
17.19	7	48.5	97.52	7 55	17.56	6	2.7	0.58	2 59	18.52	3	14.1	3.05	10 38	18.04	3	24.1	5.23	3 40	17.03	7	37.0	7.99	12 46
17.05	6	48.6	97.54	0 40	16.17	9	2.8	0.60	14 41	17.57	5	14.1	3.05	11 25	18.03	3	24.3	5.26	0 34	14.36	13	37.0	7.99	14 39
17.21	5	48.6	97.55	0 05	18.12	3	3.0	0.66	3 35	17.07	7	14.3	3.09	5 37	17.33	7	24.4	5.28	1 39	17.73	7	37.0	8.00	5 28
18.52	3	48.9	97.60	9 35	18.74	1	3.1	0.67	12 36	18.24	1	14.3	3.11	9 15	13.94	14	24.4	5.28	8 07	18.90	1	37.2	8.04	8 14
17.34	5	48.9	97.60	12 00	18.74	2	3.2	0.71	3 25	15.32	11	14.5	3.12	14 47	18.57	1	24.7	5.36	9 50	17.90	5	37.2	8.05	5 47
18.48	3	49.1	97.64	4 34	15.34	11	3.3	0.72	1 12	18.03	3	14.8	3.20	14 50	15.74	11	24.9	5.41	5 08	17.35	7	37.4	8.11	1 17
16.75	5	49.1	97.65	9 07	14.08	16	3.4	0.75	12 43	17.91*	1	14.9	3.22	12 27	18.46	2	25.3	5.46	12 21	17.70	3	37.4	8.11	4 31
18.61	2	49.5	97.72	11 30	17.43	7	3.5	0.76	3 57	17.91	1	14.9	3.22	12 25	18.59	2	25.5	5.52	2 49	17.38	7	37.5	8.12	2 51
16.42	9	49.6	97.75	11 18	12.49	14	3.8	0.82	14 27	15.58	6	14.9	3.22	8 05	17.78	7	25.6	5.55	4 27	12.96	13	37.6	8.14	4 44
16.95	7	49.6	97.75	3 23	17.91	5	4.3	0.93	8 18	18.20	2	15.2	3.30	6 23	15.80	9	25.7	5.56	10 27	18.19	3	37.7	8.15	12 34
16.13	7	49.6	97.76	8 06	18.05	2	4.3	0.93	4 53	17.99	2	15.2	3.30	1 16	18.78	2	25.8	5.59	0 18	18.09	3	37.8	8.17	14 03
16.36	9	49.8	97.79	2 12	17.97	3	4.5	0.98	2 12	18.74	1	15.3	3.31	13 43	18.35	3	25.8	5.59	3 47	18.30	3	37.8	8.19	0 06
17.92	3	49.8	97.81	9 43	18.82	2	4.5	0.98	11 20	18.65	1	15.3	3.31	11 02	17.16	7	26.0	5.62	3 30	18.74	1	38.4	8.32	1 31
18.38	2	50.0	97.82	4 01	18.65?	1	4.6	1.01	8 14	18.24	3	15.5	3.36	12 43	17.31	7	26.1	5.65	13 09	18.25	3	38.5	8.33	12 31
15.51	12	50.1	97.87	10 48	15.60	12	4.7	1.02	13 10	17.24	7	15.6	3.37	12 51	16.70	8	26.2	5.68	2 16	18.33	1	38.8	8.41	8 04
16.76	8	50.2	97.88	9 33	15.75	10	4.7	1.02	2 46	17.56	5	15.9	3.45	5 36	16.83	8	26.3	5.71	7 46	12.90	14	39.0	8.44	7 52
15.40	12	50.3	97.90	11 03	14.96	12	4.9	1.06	4 52	18.19	3	16.2	3.50	10 29	14.46	14	26.4	5.73	12 22	17.03	7	39.1	8.46	8 02
15.30	12	52.0	98.27	14 57	18.20	3	5.3	1.15	14 33	12.54	13	16.6	3.60	3 54	17.52	3	26.7	5.79	0 49	18.52	2	39.2	8.48	10 42
18.15	3	52.6	98.41	5 01	16.56	7	5.6	1.20	10 16	17.84	5	16.6	3.60	3 10	16.73	8	27.0	5.85	9 02	18.48	2	39.3	8.50	0 33
15.49	12	53.5	98.59	0 22	17.38	5	5.8	1.27	3 23	17.78	5	16.7	3.62	8 18	18.48	2	27.8	6.03	7 17	15.98	9	39.6	8.58	8 28
16.00	9	53.5	98.60	13 59	17.17	7	6.0	1.30	0 22	18.42	2	16.7	3.63	6 04	18.10	3	28.5	6.16	11 44	18.51	3	40.2	8.68	13 40
18.56	2	53.9	98.68	7 40	18.18	2	6.3	1.36	0 30	16.77	8	16.7	3.63	3 15	16.24	9	29.0	6.28	7 58	16.55	8	40.1	8.68	3 26
17.19	7	54.3	98.76	0 27	18.38	2	6.4	1.38	13 10	17.91	3	16.9	3.67	5 41	17.81	5	29.0	6.29	5 14	17.43	7	40.7	8.80	4 32
15.40	11	54.9	98.91	10 35	18.00	2	6.4	1.38	13 43	14.50	14	17.1	3.71	12 18	10.67w	8	29.2	6.30	12 31	17.59	7	40.8	8.82	13 30
17.03	7	54.9	98.91	5 17	17.35	7	6.9	1.51	4 09	18.28	3	17.4	3.76	10 43	18.33	2	29.7	6.42	11 02	18.25	3	40.8	8.83	7 01
18.21	3	54.9	98.91	9 03	17.46	4	7.0	1.53	0 03	18.22	2	17.4	3.77	14 55	17.35	7	29.7	6.43	4 55	18.90	1	41.9	9.08	9 05
18.45	3	55.4	99.01	7 04	16.70	9	7.0	1.53	6 57	17.98	3	17.5	3.79	10 51	18.41	3	29.8	6.45	9 18	15.85	10	42.5	9.18	10 16
18.10	3	55.4	99.01	2 04	16.70	8	7.1	1.55	9 16	18.47	3	17.7	3.82	10 11	18.37	3	29.9	6.47	13 54	18.13	3	42.7	9.22	14 34
18.40	3	55.8	99.09	4 21	17.51	5	7.3	1.59	9 52	16.58	8	17.7	3.83	9 43	16.82	5	30.0	6.50	0 11	18.18	2	42.6	9.23	5 45
15.68	12	56.2	99.19	6 28	15.61	12	7.4	1.60	2 06	18.44	3	17.8	3.85	4 42	18.44	2	30.2	6.55	4 24	18.59	2	42.7	9.25	9 09
15.50	11	56.3	99.20	13 19	18.26	3	7.4	1.61	4 25	17.20	7	17.8	3.85	2 19	18.49	3	30.3	6.55	13 49	18.46	2	42.8	9.25	12 33
14.65	13	57.0	99.34	5 09	18.82	1	7.7	1.67	5 05	18.78	2	18.0	3.91	3 27	17.45	7	30.7	6.60	14 13	16.97	7	42.7	9.25	0 35
18.74	1	57.1	99.38	12 05	16.36	9	8.0	1.73	8 18	17.09	7	18.5	3.99	12 53	18.75	3	30.5	6.61	5 04	18.74	2	42.8	9.26	4 42
17.46	7	57.2	99.39	14 30	15.37	12	8.3	1.80	10 24	14.39	16	18.9	4.09	9 28	15.82	9	30.7	6.62	14 04	17.59	7	42.9	9.29	7 10
18.26	3	57.2	99.41	3 24	18.74	2	8.3	1.81	3 38	18.90	1	19.0	4.11	11 38	18.90	1	31.4	6.79	4 56	18.51	3	43.2	9.33	14 50
18.10	3	57.7	99.50	12 15	18.07	5	8.4	1.82	9 34	16.67	8	19.1	4.15	5 23	18.28	2	31.7	6.86	0 56	16.91	7	43.5	9.42	1 01
17.74	3	57.8	99.52	0 09	18.36	3	8.4	1.82	9 14	15.79	12	19.3	4.18	14 12	15.03	14	31.7	6.86	9 55	18.39	3	43.6	9.43	11 08
17.83	3	58.1	99.58	0 26	18.74	1	8.7	1.88	13 19	16.68	7	19.4	4.21	12 15	18.24	3	32.2	6.98	3 57	18.43	3	43.6	9.45	5 04
16.88	7	58.2	99.61	5 17	18.82	2	8.9	1.92	3 25	17.74	5	19.6	4.25	1 46	18.35	3	32.3	6.99	2 27	17.74	5	43.7	9.47	6 34
17.11	7	58.9	99.77	4 46	17.48	7	9.7	2.11	6 30	18.23	3	19.7	4.27	2 39	16.50	8	32.3	6.99	1 55	18.35	3	43.8	9.48	3 05
17.00	7	59.4	99.87	13 58	14.70	13	10.0	2.16	10 07	17.76	7	19.7	4.27	13 05	18.04	2	32.6	7.06	14 00	15.30	12	43.9	9.51	2 08
18.09	3	59.5	99.89	12 14	18.74	1	10.1	2.18	12 00	17.23	7	20.1	4.34	0 18	15.75	9	33.0	7.12	10 17	18.00	3	44.0	9.52	1 47
17.41	7	59.5	99.91	13 37	16.99	7	10.1	2.19	3 27	18.32	3	20.1	4.36	2 31	17.74	3	33.1	7.16	10 14	17.14	7	44.8	9.68	13 32
17.47	7	59.6	99.92	10 41	17.96	3	10.2	2.21	14 48	18.74	1	20.2	4.38	2 00	16.86	7	33.1	7.17	8 05	17.15	7	45.3	9.78	13 29
18.42	3	59.8	99.97	9 26	17.96	2	10.6	2.30	14 10	17.85	5	20.3	4.39	7 54	16.68	8	33.2	7.18	7 33	17.92	3	45.4	9.82	7 26
18.30	2	60.0	0.01	2 21	15.89	9	10.6	2.31	11 54	16.48	9	20.9	4.52	0 37	14.95	13	33.2	7.18	11 40	15.70	12	45.5	9.84	4 09
18.32	2	60.1	0.02	2 48	17.54	7	10.6	2.31	5 13	18.41	1	20.9	4.53	11 54	17.40	7	33.3	7.19	10 24	14.88	13	45.6	9.88	3 35

25 prec. + 66$^{\mathrm{s}}$.8, + 7′ 12″

301—310					311—320					321—330					331—340					341—345				
Mag.		α 58^m	x	y+10′	Mag.		α 58^m	x	y+10′	Mag.		α 58^m	x	y+10′	Mag.		α 58^m	x	y+10′	Mag.		α 58^m	x	y+10′
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
17.99	2	45.8	9.89	11 56	17.66	7	48.3	10.47	9 10	16.97	7	49.9	10.80	8 48	17.65	5	53.4	11.56	8 15	18.07	3	54.6	11.82	9 06
15.82	12	46.1	9.98	6 21	14.81	13	48.4	10.48	7 30	17.66	7	50.1	10.84	5 10	18.23	3	53.4	11.56	9 56	18.22	2	54.7	11.84	0 35
18.35	3	46.1	9.99	3 18	16.20	9	48.7	10.54	5 24	18.74	1	50.6	10.94	5 25	17.95	3	53.5	11.58	3 41	16.32	9	54.7	11.85	1 43
18.19	2	46.4	10.05	1 01	17.99	5	49.1	10.60	14 08	14.66	13	50.8	10.97	14 36	17.46	7	53.5	11.59	4 12	16.40	8	54.8	11.86	6 35
16.30	9	46.5	10.07	5 48	15.53	12	49.2	10.66	5 14	15.85	9	50.8	10.97	10 27	14.84	12	53.5	11.59	0 45	15.03	12	55.2	11.96	7 54
17.48	7	46.9	10.16	2 00	16.27	9	49.4	10.70	7 47	18.27	3	50.8	10.98	14 09	17.36	7	54.1	11.70	0 49					
17.54	5	47.4	10.27	5 50	15.14	12	49.5	10.72	0 17	16.32	9	50.9	11.03	9 43	16.36	8	54.3	11.75	4 40					
18.33	3	47.6	10.28	11 11	14.77	13	49.6	10.72	13 30	17.82	1	52.1	11.28	4 34	11.66w	10	54.4	11.77	2 45					
16.65	8	47.8	10.36	0 23	18.29	3	49.8	10.77	14 29	18.18	2	52.2	11.30	4 37	17.69	5	54.4	11.78	2 29					
15.94	9	48.2	10.45	0 05	15.38	12	49.7	10.77	4 34	18.10	2	53.4	11.55	12 31	16.96	7	54.5	11.79	5 51					

25 prec. + 66.^{s}9, + 7′ 13″

21^h Area 66. Supplementary Stars + 29°, + 30°

1s—40s					41s—80s					81s—120s					121s—160s					161s—200s				
Mag.		α 57^m	x	y+10′	Mag.		α 57^m	x	y+70′ / y+10′	Mag.		α 57^m	x	y+70′ / y+10′	Mag.		α 58^m	x	y+70′ / y+10′	Mag.		α 58^m	x	y+70′ / y+10′
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
15.85	8	31	93.7	5.0	12.95	13	43	96.4	4.1	16.34	5	59	99.8	58.2	17.28	6	20	4.2	16.6	16.90	6	43	9.3	16.1
15.61	8	31	93.8	6.2	16.48	7	43	96.4	8.4	12.56	12	60	0.0	57.5	16.75	6	19	4.2	19.5	16.73	6	43	9.4	59.2
17.53	4	32	93.8	7.3	16.24	7	44	96.4	9.4	16.52	7	61	0.2	17.3	18.01	2	21	4.4	16.4	16.46	7	43	9.4	15.2
17.36	4	31	93.8	8.8	14.90	10	43	96.4	10.8	17.94	2	61	0.3	59.4	8.20	4	22	4.6	17.4	14.44	12	44	9.4	17.4
18.24	2	32	93.9	10.9	16.37	7	44	96.4	13.2	17.28	6	62	0.4	17.5	17.36	4	21	4.6	17.6	17.13	6	45	9.8	59.5
16.97	5	33	94.1	4.1	16.98	6	44	96.5	4.7	17.29	6	62	0.4	18.6	18.20	2	22	4.7	17.7	16.94	6	46	9.9	16.3
18.26	2	33	94.2	3.6	18.33	2	44	96.5	9.6	17.35	4	63	0.6	17.2	17.28	6	23	4.9	58.2	15.72	10	46	10.0	58.6
18.20	2	34	94.4	5.6	18.02	2	45	96.7	0.0	14.64	11	63	0.7	15.8	17.42	6	24	5.2	58.6	16.72	6	50	10.8	15.9
15.50	8	34	94.4	7.9	13.71	12	45	96.7	1.8	17.00	6	64	0.8	16.4	15.51	10	24	5.2	15.4	18.00	2	56	12.0	4.8
14.33	8	34	94.4	13.3	17.90	2	45	96.7	3.3	14.70	12	64	1.0	17.3	17.34	6	24	5.2	16.4	17.05	6	56	12.0	13.1
16.50	7	35	94.5	5.1	17.92	2	45	96.7	9.8	17.23	6	66	1.4	15.4	18.20	2	24	5.2	18.8	18.16	2	56	12.0	14.2
14.61	9	35	94.5	13.4	15.65	9	45	96.7	15.4	13.73	14	67	1.4	17.4	15.65	10	25	5.4	17.0	17.80	2	56	12.0	15.0
18.11	2	36	94.8	2.6	14.89	10	45	96.8	7.1	18.18	2	67	1.5	57.5	17.41	6	25	5.4	19.4	15.57	8	55	12.0	16.2
17.28	6	36	94.8	10.8	13.20	13	46	96.9	1.1	14.56	12	68	1.7	58.9	17.11	4	26	5.7	18.4	15.99	8	56	12.1	1.5
16.34	7	37	95.0	4.8	16.59	7	46	96.9	8.8	13.12	14	68	1.7	19.1	12.91	14	27	5.8	16.0	17.49	4	56	12.1	13.5
15.65	10	37	95.0	8.6	17.34	6	46	96.9	11.7	18.06	2	68	1.8	57.7	14.93	11	27	5.9	19.5	16.74	7	57	12.2	1.6
16.63	4	37	95.1	3.0	17.26	6	46	96.9	12.0	17.03	6	68	1.8	18.4	17.05	5	28	6.0	59.7	16.56	5	56	12.2	3.7
16.98	6	37	95.1	11.6	17.82	2	46	96.9	15.3	17.38	4	69	2.0	16.8	13.80	12	28	6.0	17.5	16.78	6	57	12.2	12.0
17.33	6	38	95.2	3.0	17.71	2	46	97.0	1.6	15.72	9	69	2.0	17.6	17.68	4	28	6.2	59.0	18.32	2	56	12.2	13.8
17.26	4	38	95.2	4.2	15.13	9	46	97.0	15.1	17.17	6	70	2.2	17.4	13.73	14	29	6.2	17.8	17.36	4	56	12.2	14.9
18.00	2	38	95.2	10.2	16.80	6	46	97.0	16.0	17.03	6	72	2.6	58.4	17.17	6	29	6.3	18.4	17.13	6	58	12.4	59.9
17.42	6	38	95.3	8.6	15.73	8	47	97.2	15.8	17.25	5	72	2.6	16.1	17.40	2	30	6.5	57.1	15.63	10	57	12.4	5.2
15.86	8	39	95.4	2.4	17.30	6	47	97.2	16.0	13.82	15	72	2.6	18.0	18.11	2	31	6.6	18.8	17.12	3	57	12.4	16.1
15.32	10	39	95.4	3.8	18.26	2	47	97.2	16.4	17.44	6	73	2.7	18.1	17.35	6	31	6.7	59.0	15.49	10	58	12.6	3.8
17.41	6	39	95.4	11.4	16.22	7	48	97.3	16.4	17.11	5	73	2.9	57.1	15.38	9	32	6.8	59.6	17.00	6	58	12.6	7.6
14.73	11	40	95.6	1.6	15.86	4	48	97.4	15.3	18.49	2	74	3.0	17.2	18.08	2	32	7.0	58.0	15.97	7	58	12.6	9.0
16.60	7	40	95.6	6.3	16.34	4	48	97.5	15.3	18.28	2	74	3.1	58.2	16.96	6	32	7.0	17.0	15.84	7	58	12.6	11.2
15.83	9	40	95.6	11.0	17.36	6	50	97.9	16.4	16.08	7	74	3.1	16.1	14.88	11	32	7.0	17.8	17.79	2	59	12.8	0.4
16.95	6	40	95.7	5.1	16.50	7	53	98.4	15.9	18.12	2	75	3.2	57.6	16.56	6	34	7.4	59.1	14.53	12	59	12.8	5.7
17.62	4	40	95.7	11.4	17.43	4	52	98.4	16.4	18.16	2	76	3.4	15.2	17.40	6	36	7.7	18.4	15.40	10	59	12.8	9.0
14.87	10	40	95.7	11.6	14.75	10	53	98.4	17.0	17.35	6	76	3.4	16.6	16.93	6	36	7.8	18.5	18.36	2	60	12.9	4.4
16.90	4	40	95.8	0.8	15.63	8	53	98.5	16.6	16.12	7	77	3.6	57.2	17.33	6	37	8.0	16.2	16.50	7	60	12.9	11.6
16.49	7	41	95.8	9.2	17.13	6	54	98.8	17.0	18.62	2	77	3.6	15.6	15.29	10	38	8.2	18.5	17.06	6	60	12.9	12.4
17.29	6	41	95.9	1.2	16.33	7	55	98.9	17.8	17.47	4	76	3.6	18.0	16.33	7	38	8.3	16.0	17.42	4	60	12.9	14.4
15.64	10	42	96.0	1.8	18.20	2	57	99.3	58.8	15.89	8	77	3.7	15.8	16.80	6	40	8.6	59.2	14.14	9	60	13.0	0.6
17.50	4	41	96.0	7.4	18.24	2	57	99.4	58.3	16.21	7	78	3.9	57.6	17.51	6	42	9.0	59.8	16.70	6	60	13.0	9.1
12.85	13	41	96.0	10.4	15.92	7	57	99.4	59.8	18.40	2	78	3.9	18.4	18.06	2	42	9.2	57.8	16.86	4	60	13.0	11.2
18.04	2	42	96.2	2.6	16.84	6	57	99.4	18.2	16.58	7	79	4.1	16.5	16.83	6	42	9.2	58.3	16.88	6	61	13.2	4.0
17.28	4	43	96.3	0.4	16.70	6	58	99.6	58.3	17.80	2	80	4.2	57.2	17.97	2	43	9.2	59.6	18.16	2	61	13.2	8.7
17.48	6	43	96.3	6.4	17.74	2	59	99.7	18.2	15.91	7	80	4.2	59.5	14.09	13	43	9.3	15.6	18.42	2	61	13.2	8.8

25 prec. + 66.^{s}8, + 7′ 12″

21^{h} Area 66. Supplementary Stars + 30°

201s—210s				211s—220s				221s—230s				231s—235s			
Mag.	α 59^{m}	x	$y+10'$	Mag.	α 59^{m}	x	$y+10'$	Mag.	α 59^{m}	x	$y+10'$	Mag.	α 59^{m}	x	$y+10'$
	s	′	′		s	′	′		s	′	′		s	′	′
15.18 9	1	13.2	10.6	14.97 10	4	13.8	9.6	17.34 6	9	14.8	5.1	14.71 10	11	15.4	10.2
14.83 11	1	13.2	14.6	13.26 14	4	13.8	11.2	15.71 4	8	14.8	10.3	17.41 4	11	15.4	10.8
16.92 6	2	13.4	4.0	13.86 14	4	13.8	12.8	15.88 4	8	14.8	10.4	17.22 4	12	15.6	7.9
16.86 6	2	13.4	5.3	18.30 2	5	14.2	9.8	17.32 6	9	14.8	10.6	18.02 2	12	15.6	8.3
14.58 10	2	13.4	5.9	16.94 4	6	14.3	9.8	18.20 2	9	14.9	3.3	17.98 2	13	15.8	7.4
16.34 7	2	13.4	7.6	17.06 4	7	14.4	13.0	15.14 10	9	14.9	5.9				
17.70 2	2	13.4	14.8	17.13 4	8	14.6	13.5	17.49 6	10	15.0	5.0				
17.43 4	2	13.4	15.3	18.36 2	8	14.7	7.0	16.84 6	9	15.0	8.4				
13.77 14	3	13.6	5.7	18.16 2	8	14.7	9.5	16.71 6	11	15.4	5.0				
17.42 4	4	13.8	4.4	15.92 7	9	14.8	3.2	16.49 7	11	15.4	5.3				

25 prec. + $66^{\mathrm{s}}.9$, + 7′ 13″

23^{h} Area 67. Center for 1900: 23^{h} 1^{m} + 30° 10′ (15′ × 15′) + 30°

1—40				41—80				81—120				121—160				161—200			
Mag.	α 0^{m}	x	$y+10'$	Mag.	α 0^{m}	x	$y+10'$	Mag.	α 0^{m}	x	$y+10'$	Mag.	α 1^{m}	x	$y+10'$	Mag.	α 1^{m}	x	$y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
14.82 14	29.0	93.30	18 01	19.44 2	41.0	95.89	12 06	17.46 6	51.4	98.15	10 31	19.36 1	3.9	0.85	13 21	16.10 11	24.4	5.28	9 35
15.90 11	29.2	93.35	11 13	18.48 3	41.0	95.91	11 58	18.22 3	51.9	98.25	19 24	16.34 10	4.6	0.99	19 48	15.21 13	24.5	5.31	14 08
14.18 14	29.6	93.44	13 59	18.79 3	41.1	95.91	9 29	18.30 1	52.3	98.34	12 15	17.14 8	4.8	1.04	18 53	16.01 11	24.8	5.37	7 48
15.74 10	29.6	93.44	18 49	16.12 10	41.1	95.93	18 25	16.31 10	52.3	98.35	17 06	19.59 1	5.4	1.16	12 56	19.25 1	25.0	5.41	11 09
17.60 3	29.6	93.45	18 04	17.47 5	41.4	95.99	18 04	18.30 1	52.6	98.41	11 07	18.12 3	5.6	1.21	12 00	16.29 10	25.0	5.41	10 49
16.12 11	30.7	93.66	5 53	18.47 3	41.9	96.09	15 56	18.00 3	52.7	98.42	19 50	18.14 3	6.2	1.34	10 51	17.90 3	25.2	5.46	5 33
17.65 3	30.6	93.66	18 58	18.41 3	42.1	96.15	17 31	18.95 3	53.3	98.56	10 36	16.31 11	8.2	1.77	9 10	12.82 13	25.9	5.59	12 55
16.03 10	30.9	93.70	7 20	18.18 3	42.2	96.17	10 11	17.34 8	54.0	98.71	9 56	17.28 6	9.1	1.96	13 35	17.29 8	26.0	5.62	10 56
15.50 12	31.1	93.78	10 32	17.39 7	42.4	96.21	19 10	18.64 3	54.1	98.72	7 50	18.27 3	9.8	2.12	6 52	14.68 14	26.0	5.63	8 19
19.36 1	31.8	93.90	7 56	16.78 9	42.5	96.22	19 03	18.68 3	54.1	98.72	16 40	19.15 3	10.8	2.34	11 30	18.66 3	26.1	5.64	9 07
19.36 1	31.8	93.91	7 51	15.39 12	42.9	96.31	14 04	18.23 3	54.3	98.77	6 57	17.39 5	11.0	2.39	19 24	18.18 3	26.1	5.64	7 47
18.30d 1	32.3	94.00	7 37	18.68 2	43.1	96.35	18 53	17.80 5	54.9	98.90	9 05	17.92 3	11.4	2.46	12 23	15.47 12	26.3	5.70	6 09
18.59 3	33.2	94.22	16 12	19.36 1	43.3	96.39	16 13	14.45 14	55.0	98.93	8 29	18.64 2	12.6	2.73	17 27	18.02 3	27.1	5.86	18 56
17.78 5	33.9	94.36	8 44	19.59 1	44.0	96.54	11 49	18.53 2	55.4	99.01	18 18	18.04 3	12.7	2.74	11 26	12.41 15	27.1	5.87	9 30
17.20 8	34.1	94.39	6 53	19.48 1	44.6	96.67	12 11	15.34 11	55.8	99.09	15 15	15.53 12	12.8	2.77	12 03	13.21 16	27.6	5.96	16 03
15.78 11	34.1	94.40	10 27	16.19 10	45.3	96.83	16 02	17.61 3	56.2	99.18	19 39	18.45 3	13.6	2.94	7 30	19.12 1	27.7	6.01	7 21
18.42d 1	34.3	94.44	7 31	14.28 14	45.8	96.94	16 14	18.57 3	56.2	99.18	11 54	19.48 1	14.1	3.04	9 47	18.62 2	28.9	6.25	11 52
18.62 3	34.3	94.46	15 51	19.48 1	45.8	96.95	14 05	19.48 1	56.4	99.22	13 51	11.73w 13	14.6	3.17	7 49	16.51 8	29.2	6.33	8 03
17.41 5	34.4	94.47	11 59	15.30 12	46.5	97.08	10 01	18.34 3	57.0	99.34	8 01	18.33 3	15.5	3.34	19 09	16.23 9	29.8	6.45	17 50
16.57 8	34.5	94.50	14 26	19.48 1	46.8	97.14	12 35	9.67w 8	57.0	99.35	11 00	17.62 3	15.7	3.40	17 06	16.80 9	31.1	6.72	19 20
13.41 17	34.9	94.56	5 33	18.56 3	47.3	97.26	8 01	12.49 13	57.0	99.35	19 02	17.96d 1	16.3	3.52	15 45	18.74 2	31.1	6.73	7 11
15.54 12	34.9	94.57	8 40	15.56 12	47.4	97.29	18 16	18.21 3	57.1	99.38	12 01	19.36 1	16.6	3.60	8 26	19.10 2	32.6	7.04	14 00
16.30 10	35.3	94.66	15 14	18.62 2	47.7	97.34	16 17	16.43 9	57.6	99.48	5 32	15.21 13	17.1	3.71	13 39	18.13 3	32.7	7.06	11 33
19.48? 1	35.9	94.81	12 09	19.36 1	48.1	97.42	16 41	19.48 1	58.2	99.61	9 17	17.05 8	17.6	3.80	19 39	14.62 14	32.7	7.07	18 02
18.53 1	37.0	95.04	12 29	14.37 14	48.2	97.46	14 29	19.30 2	58.3	99.64	12 29	17.18 8	18.2	3.92	19 32	16.66 8	32.9	7.11	11 19
18.53 1	37.0	95.04	12 14	18.71 3	48.6	97.55	16 55	18.15 3	59.0	99.78	5 16	17.48 5	18.6	4.03	8 26	17.64 3	33.3	7.19	16 21
19.36 1	37.0	95.05	11 39	18.54 3	48.6	97.55	9 46	17.55 5	59.8	99.96	7 46	17.42 7	20.5	4.43	11 09	17.08 8	33.4	7.23	8 44
18.76 1	37.2	95.08	17 46	15.58 12	48.8	97.59	5 37	18.43 3	59.9	99.99	15 01	15.17 13	20.8	4.50	16 12	16.64 8	33.7	7.29	8 40
18.03 3	37.2	95.08	15 02	16.99 6	48.8	97.59	19 56	18.70 3	60.0	0.01	18 56	16.15 10	21.2	4.59	6 25	17.53 5	33.9	7.32	18 15
15.54 12	37.8	95.19	9 28	17.57 7	48.9	97.60	8 22	17.73 3	60.3	0.06	15 50	18.60 3	21.5	4.65	14 16	19.12 1	34.4	7.42	12 00
19.36 1	38.1	95.27	8 21	18.77 2	49.1	97.65	18 26	17.04 8	60.5	0.11	13 09	18.06 3	21.5	4.65	19 35	16.24 9	34.4	7.44	6 37
19.36 1	38.5	95.35	7 37	17.36 7	49.4	97.71	5 14	17.36 7	60.7	0.15	14 25	15.50 11	22.0	4.76	5 05	18.30 2	34.6	7.48	9 40
18.44 3	38.5	95.36	6 37	19.25 1	49.6	97.75	17 33	14.24 15	60.7	0.16	5 45	19.25 1	22.3	4.82	7 26	17.21 1	34.7	7.49	19 17
19.36 1	39.0	95.47	12 14	18.80 2	49.7	97.79	17 14	15.02 12	60.7	0.16	19 02	16.08 10	22.4	4.84	15 53	17.77 3	35.2	7.60	16 50
18.76 1	39.3	95.53	11 35	13.99 18	49.8	97.81	13 20	19.36 1	61.2	0.26	6 06	18.66 3	22.5	4.86	14 17	16.88 6	36.5	7.88	17 15
19.25 1	39.4	95.55	5 05	19.71 1	50.4	97.92	12 03	18.65 1	61.7	0.37	18 36	17.26 7	23.6	5.10	17 48	17.92 2	37.2	8.05	6 38
15.45 12	39.7	95.62	18 04	19.71 1	50.9	98.04	10 20	17.96d 1	61.8	0.38	18 44	19.12 1	23.8	5.15	5 11	16.69 8	37.2	8.06	6 18
18.57 3	40.1	95.70	16 04	17.71 5	51.2	98.11	12 01	17.52 5	62.1	0.46	10 47	17.20 8	24.0	5.19	18 39	16.85 8	38.2	8.24	12 32
17.22 8	40.3	95.75	16 25	15.52 12	51.3	98.13	15 25	17.33 6	62.4	0.53	7 55	18.76 1	24.3	5.25	16 32	17.50 3	38.3	8.27	14 09
19.36 1	40.6	95.81	14 48	17.26 8	51.4	98.14	9 52	18.26 3	63.4	0.75	6 29	15.57 12	24.4	5.27	19 18	17.13 8	38.4	8.29	10 19

25 prec. + $71^{\mathrm{s}}.8$, + 8′ 5″

23^h Area 67. Supplementary Stars + 30°

1s—30s					31s—60s					61s—90s					91s—118s				
Mag.		α 0^m	x	$y+10'$	Mag.		α 0^m	x	$y+10'$	Mag.		α 0^m	x	$y+10'$	Mag.		α 1^m	x	$y+10'$
		s	′	′			s	′	′			s	′	′			s	′	′
16.50	7	6	88.3	12.5	17.60	2	19	91.1	3.2	17.27	6	29	93.2	3.3	17.39	2	4	0.8	22.0
17.45	4	8	88.7	12.7	16.39	7	19	91.1	12.2	16.93	2	29	93.2	20.5	16.42	8	4	0.9	2.3
17.16	7	9	88.9	7.2	13.53	14	19	91.1	15.6	18.43	2	33	94.1	3.4	18.49	2	5	1.0	3.8
17.72	2	9	89.0	11.6	13.98	14	19	91.1	17.8	17.88	2	33	94.2	20.7	16.50	7	5	1.1	4.0
17.05	7	9	89.0	11.7	16.97	7	20	91.3	4.7	17.59	2	34	94.3	2.2	17.47	2	6	1.2	2.8
13.27	14	9	89.0	12.9	15.62	10	20	91.3	9.6	15.19	11	34	94.3	4.9	17.45	6	7	1.4	4.4
16.47	7	10	89.1	6.4	17.24	7	20	91.3	13.8	15.95	9	35	94.6	1.4	15.07	11	7	1.5	22.2
14.38	12	10	89.1	14.0	14.46	12	20	91.4	8.4	17.30	6	36	94.8	4.8	18.39	2	8	1.6	21.4
17.16	6	10	89.2	9.4	17.12	7	22	91.7	9.3	18.10	2	38	95.2	21.4	18.08	2	13	2.9	2.8
18.55	2	10	89.2	11.4	17.71	2	22	91.8	18.6	15.40	9	41	95.9	3.4	17.53	2	13	2.9	21.1
16.86	7	10	89.2	15.3	17.00	7	23	92.1	17.2	16.74	7	44	96.5	2.8	17.65	2	16	3.4	4.7
17.09	7	11	89.4	8.6	18.41	2	23	92.1	17.4	15.99	7	45	96.8	20.9	18.62	2	20	4.4	2.4
17.02	7	12	89.7	15.0	18.55	2	24	92.2	4.5	16.87	7	46	96.9	21.2	18.47	2	20	4.4	2.5
15.27	10	13	89.8	5.6	17.03	7	24	92.2	5.9	18.21	2	51	98.1	1.2	18.35	2	21	4.6	4.0
17.79	2	13	89.8	10.8	17.69	2	24	92.2	6.4	17.94	2	52	98.2	22.4	17.76	2	21	4.6	4.8
16.38	7	13	89.8	11.9	17.94	2	24	92.2	17.3	13.00	14	53	98.4	1.8	17.87	2	23	5.0	3.4
17.04	7	13	90.0	17.4	14.57	12	24	92.3	9.3	17.42	4	53	98.5	3.4	16.96	7	27	5.8	4.0
16.42	5	14	90.1	15.4	17.24	6	25	92.4	5.4	17.83	2	55	98.9	1.4	14.21	14	40	8.6	6.4
16.64	7	16	90.4	3.8	13.11	14	26	92.6	15.8	14.63	12	55	98.9	1.7	16.63	7	40	8.6	17.4
15.85	9	16	90.4	5.9	17.60	2	26	92.6	17.4	16.17	8	55	99.0	1.6	18.68	2	41	8.9	12.4
16.38	7	16	90.4	10.1	18.16	2	26	92.6	19.7	16.07	9	56	99.1	4.1	17.71	2	43	9.2	6.4
17.17	7	16	90.4	12.9	16.16	7	27	92.8	9.2	17.23	5	56	99.2	0.4	16.16	7	43	9.2	16.7
15.78	8	16	90.4	15.1	17.19	7	27	92.8	15.6	16.06	8	61	0.3	3.2	15.66	9	44	9.6	11.8
16.00	6	16	90.4	18.1	18.47	2	27	92.9	5.1	18.00	2	62	0.4	3.1	17.37	4	45	9.7	10.8
16.64	7	17	90.6	5.2	18.34	2	27	92.9	10.2	14.83	12	62	0.4	3.4	17.60	2	46	9.8	10.2
17.30	6	17	90.7	13.3	16.94	7	27	92.9	17.9	18.14	2	62	0.5	1.3	14.93	11	46	9.8	11.8
17.82	2	17	90.8	6.4	17.76	2	28	93.0	4.1	17.00	7	63	0.6	4.9	17.79	2	50	10.7	11.9
16.98	7	17	90.8	13.8	11.46	11	28	93.0	16.4	15.47	10	63	0.6	22.0	15.40	9	50	10.8	11.9
15.97	8	18	91.0	7.9	16.14	8	28	93.1	3.8	15.81	9	63	0.7	3.4					
17.94	2	18	91.0	9.2	17.20	7	28	93.1	8.3	16.25	8	63	0.8	4.6					

25 prec. + $71^s.8$, + 8′ 5″

0^h Area 68. Center for 1900: 0^h 11^m + 15° 20′ (20′ × 20′) + 15°

1—20					21—40					41—60					61—80					81—100				
Mag.		α 10^m	x	$y+20'$	Mag.		α 10^m	x	$y+20'$	Mag.		α 11^m	x	$y+20'$	Mag.		α 11^m	x	$y+20'$	Mag.		α 11^m	x	$y+20'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
17.67	3	41.2	95.47	17 28	17.53	3	53.1	98.34	18 03	16.91	9	5.2	1.25	12 41	15.48	12	16.9	4.08	17 51	9.08w	7	24.9	6.00	16 53
17.63	1	41.4	95.50	8 52	19.08	2	53.9	98.52	21 49	18.38	2	5.2	1.25	22 55	19.29	1	17.0	4.11	16 04	17.57	3	27.2	6.56	15 17
17.17	7	42.2	95.69	12 22	15.68	12	54.4	98.65	17 47	17.99	1	5.4	1.29	6 18	18.40	2	17.1	4.12	18 11	14.66	14	27.6	6.67	9 39
15.99	11	43.5	96.02	21 37	15.07	1	55.7	98.96	6 37	17.81	5	8.1	1.96	19 45	18.59	2	17.4	4.21	12 56	13.93	13	28.4	6.86	5 53
17.86	3	43.6	96.05	18 45	16.51	8	56.3	99.10	11 38	13.81	16	8.7	2.13	9 14	18.32	2	18.8	4.53	23 57	16.49	9	28.5	6.88	21 22
15.54	11	44.1	96.15	14 56	17.35	7	56.5	99.15	23 51	17.44	7	9.0	2.18	22 27	15.74	9	19.9	4.81	9 13	12.57w	16	29.5	7.09	20 42
18.50	2	44.3	96.19	12 08	16.96	8	56.5	99.16	18 10	16.70	1	9.1	2.19	5 24	19.21	2	20.0	4.82	24 40	17.27	7	29.6	7.15	9 55
17.66	3	44.3	96.22	17 04	17.96	2	57.1	99.31	22 43	19.07?	1	9.7	2.32	14 44	19.07	1	20.3	4.89	21 57	13.52	16	29.7	7.16	20 39
17.48	3	44.5	96.24	12 22	17.90d	1	57.4	99.38	17 22	13.86	17	10.2	2.45	15 46	18.06	2	20.8	5.03	13 05	17.79	3	31.0	7.47	22 22
16.50	1	44.5	96.25	9 48	17.55	1	58.1	99.54	5 19	15.92	11	10.9	2.62	21 42	18.79	2	21.5	5.19	10 19	17.15	3	31.2	7.52	22 26
17.58	2	44.6	96.29	21 07	18.40	2	58.1	99.56	12 19	15.03	11	10.9	2.65	6 40	14.58	14	21.8	5.25	22 42	13.83	17	32.8	7.92	14 07
17.25	8	46.5	96.74	17 33	15.73	10	59.0	99.75	9 25	17.40	8	11.1	2.68	19 31	13.47	16	21.9	5.27	18 03	15.93	9	33.7	8.15	7 22
16.68	2	47.5	97.01	24 22	15.23	12	59.8	99.96	19 10	17.70	2	12.3	2.99	8 43	16.01	9	22.5	5.43	13 03	18.08	2	33.9	8.21	7 54
13.91	18	48.4	97.19	16 38	16.90	1	60.0	0.00	5 02	17.70	3	12.6	3.04	13 14	18.35	2	22.5	5.43	7 11	16.96	9	35.4	8.54	14 23
16.41	9	48.5	97.22	13 42	18.44	2	60.3	0.07	24 43	18.80	2	13.4	3.24	13 26	17.90	3	22.7	5.47	22 09	17.63	7	35.5	8.54	15 38
13.27	16	48.5	97.22	14 56	17.38	5	60.4	0.10	14 20	18.44	2	14.0	3.39	19 45	13.76	18	23.0	5.55	15 31	18.79	2	35.5	8.56	17 09
17.85	2	48.7	97.28	20 17	17.19	1	62.1	0.51	5 06	18.59	2	14.3	3.46	18 36	17.87	3	23.4	5.64	24 37	19.07	1	36.3	8.75	20 51
12.71w	15	49.5	97.47	18 53	18.70	2	63.6	0.88	24 16	14.95	13	15.0	3.63	17 32	16.77	9	23.6	5.69	12 10	17.82	4	36.6	8.83	16 13
17.46	7	50.1	97.63	17 37	15.37	12	63.8	0.92	22 19	17.87	6	15.6	3.75	16 59	18.27	2	24.3	5.84	20 20	13.97	16	36.7	8.85	22 09
18.88	1	50.7	97.74	16 00	18.08	1	65.0	1.20	9 13	17.48	3	15.8	3.80	19 50	15.30	10	24.8	5.97	16 38	17.69	5	37.0	8.92	19 30

25 prec. + $77^s.3$, + 8′ 21″

Area 68

101—120					121—140					141—142					1*s*—12*s*				
Mag.		α 11^{m}	x	$y+20'$	Mag.		α 11^{m}	x	$y+20'$	Mag.		α 12^{m}	x	$y+20'$	Mag.		α 10^{m}	x	$y+20'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′
17.60	5	37.1	8.95	19 23	18.23	3	49.2	11.86	18 07	17.83	2	2.0	14.95	17 07	15.44	10	56	99.0	25.8
19.07	1	37.2	8.96	19 45	15.37	10	49.2	11.86	18 35	18.28	1	3.5	15.30	19 16	15.29	9	63	0.8	25.3
19.18	2	37.7	9.08	17 23	18.59	2	50.7	12.22	20 58						13.34	15	66	1.4	26.2
17.49	7	37.9	9.16	11 00	18.60	2	51.4	12.38	15 10						13.44	14	74	3.4	26.4
18.56	2	38.6	9.29	17 27	16.99d	1	51.7	12.45	20 38						15.95	9	78	4.4	27.7
13.97	18	39.4	9.49	16 07	17.31	5	51.9	12.52	8 41						15.93	8	87	6.6	26.6
16.91	9	39.6	9.58	14 02	18.30	2	55.1	13.30	12 59						15.58	8	92	7.6	27.1
17.57	5	40.0	9.66	14 01	15.68	8	55.3	13.36	12 11						13.27	16	125	15.6	13.2
17.44	5	40.4	9.72	23 15	16.79	9	55.7	13.42	15 52						17.01	7	127	16.1	16.6
15.36	11	42.7	10.32	11 05	17.36	5	56.1	13.55	14 01						17.65	2	129	16.6	13.8
18.28	1	43.3	10.42	16 50	18.30	2	56.6	13.64	16 58						17.00	6	129	16.7	12.8
17.08	6	43.3	10.44	11 26	15.60	11	56.8	13.68	18 16						13.82	15	130	17.0	14.3
15.92	2	44.8	10.82	5 28	17.34	5	57.1	13.76	17 07										
18.16	2	45.3	10.93	17 53	17.81	1	58.5	14.12	8 32										
17.36	5	45.6	11.02	7 53	16.89	8	58.9	14.20	20 24										
17.48	7	46.5	11.20	19 37	17.49	5	59.2	14.31	14 00										
19.11	2	47.0	11.36	7 47	14.54	13	59.6	14.40	13 31										
17.36	5	47.2	11.40	11 04	17.25	7	59.8	14.40	15 45										
14.05	18	48.3	11.65	16 03	18.70	2	60.6	14.59	23 12										
14.67	14	48.6	11.75	13 09	15.32	1	61.0	14.72	8 26										

25 prec. + $77^{\mathrm{s}}.3$, + 8′ 21″

Area 69. Center for 1900: $1^{\mathrm{h}}\ 15^{\mathrm{m}}$ + 15° 10′ (20′ × 20′)

1—30					31—60					61—90					91—113					1*s*—12*s*				
Mag.		α 14^{m}	x	$y+10'$	Mag.		α 14^{m}	x	$y+10'$	Mag.		α 15^{m}	x	$y+10'$	Mag.		α 15^{m}	x	$y+10'$	Mag.		α 14^{m}	x	$y+70'$ / $y+10'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′
✓12.51w	15	40.1	95.19	7 49	18.22	3	56.1	99.06	11 04	17.82n	1	14.7	3.55	18 30	15.30	12	37.7	9.11	8 52	18.33	2	38	94.7	10.1
18.46n	1	40.1	95.20	4 36	18.39	3	56.6	99.18	8 48	17.77	3	15.1	3.65	9 50	16.56	9	38.0	9.17	12 51	14.70	11	38	94.8	9.2
15.89	9	40.2	95.23	5 25	17.47	3	59.2	99.80	7 19	17.03	8	15.2	3.67	17 02	16.24	9	40.4	9.76	9 24	18.25	2	71	2.6	59.6
17 71	3	40.9	95.39	9 15	17.61	3	59.5	99.88	9 56	16.79	8	16.2	3.93	0 49	18.27	3	41.1	9.93	4 47	17.34	2	72	3.0	20.4
17.98	1	41.0	95.41	1 41	18.56	2	60.6	0.14	15 55	18.34	2	16.4	3.96	4 52	15.87	10	42.9	10.37	5 38	17.83	2	79	4.6	58.6
13.86	1	42.2	95.71	2 23	18.10	3	60.6	0.14	19 44	18.03	3	16.4	3.96	7 46	15.70	10	43.2	10.43	8 10	18.23	2	86	6.2	20.8
18.49	3	43.6	96.05	11 21	14.92	13	60.8	0.21	11 17	16.37	9	16.5	3.98	16 13	18.78	1	43.4	10.47	10 58	17.88	2	86	6.3	59.4
18.17	3	44.0	96.12	11 02	18.54	3	61.1	0.28	3 28	16.96	8	17.2	4.16	1 01	18.12	3	43.7	10.53	16 03	16.12	7	88	6.8	59.8
16.99	8	44.2	96.17	7 57	17.67	3	62.1	0.51	19 25	19.02	1	19.2	4.64	9 29	✓14.67	13	43.9	10.58	15 34	18.06	2	123	15.1	7.5
18.43	3	44.2	96.18	10 39	15.99	10	62.6	0.62	3 36	18.44	2	21.0	5.07	13 34	17.95	3	44.4	10.73	9 39	14.93	11	123	15.1	13.2
17.98	3	44.7	96.30	10 26	17.91	3	62.6	0.63	12 03	✓8.22w	6	21.1	5.10	10 19	11.61w	15	45.6	11.02	10 17	16.93	7	123	15.2	10.0
15.25	2	45.6	96.53	0 17	17.50	3	64.8	1.16	12 31	18.54	2	22.0	5.31	19 37	✓14.39w	7	46	11.1	10 18	18.01	2	127	16.2	11.7
16.98	8	45.9	96.59	9 05	14.93	12	66.2	1.51	8 46	18.66	2	22.9	5.52	17 07	18.50	2	46.6	11.24	11 16					
18.12	2	46.7	96.78	5 05	16.52	9	67.1	1.70	17 23	17.71	3	23.0	5.56	18 44	18.46	1	49.0	11.83	0 40					
14.90	2	46.7	96.79	1 52	15.27	12	67.7	1.86	1 21	18.68	2	23.5	5.67	11 30	12.69w	12	49.1	11.86	13 34					
16.94	8	47.5	96.98	4 08	18.09	3	67.7	1.86	1 31	18.94	1	23.6	5.69	9 45	18.24	3	49.9	12.03	17 19					
17.65	3	48.0	97.09	2 53	18.02	3	68.1	1.95	13 37	14.74	13	24.9	6.02	8 27	18.57	3	50.2	12.13	3 39					
16.42	9	49.0	97.34	8 48	17.22	8	68.2	1.97	10 57	15.60	9	25.1	6.06	8 55	14.78	13	53.3	12.87	10 54					
17.78	3	49.4	97.40	11 06	18.66	3	68.3	2.00	17 31	18.06	3	25.4	6.13	6 47	15.96	9	53.8	13.00	14 10					
18.59	3	49.6	97.44	12 16	18.01	3	68.9	2.16	6 22	15.13	10	25.5	6.15	19 17	18.29	3	54.0	13.06	13 32					
16.79	8	49.7	97.46	10 29	18.44	3	69.9	2.39	6 27	14.29	13	25.9	6.24	13 47	18.22	3	57.6	13.87	18 24					
15.43	12	51.1	97.84	9 02	18.24	3	70.4	2.50	0 41	14.38	14	26.3	6.36	12 10	17.47	3	57.4	13.88	5 45					
15.94	10	52.4	98.16	11 49	15.99	10	70.7	2.58	17 44	17.27	9	26.4	6.38	11 12	18.29	3	59.0	14.24	10 02					
18.12	3	52.5	98.20	3 25	18.67	3	71.0	2.66	3 22	17.08	8	26.6	6.42	12 17										
18.05	3	52.7	98.25	16 24	18.80	2	71.2	2.69	9 55	15.97	9	26.6	6.43	9 52										
17.42d	1	53.9	98.52	8 31	17.26	6	71.6	2.80	3 39	16.36	9	27.4	6.63	3 36										
15.26	12	54.1	98.58	6 12	17.11	8	71.8	2.84	7 09	17.83	3	31.7	7.65	15 17										
18.15	3	54.2	98.60	10 11	17.43	3	73.9	3.36	17 11	17.87	3	31.8	7.67	2 23										
16.94	8	54.6	98.70	18 13	18.86	1	74.1	3.41	10 45	13.49	15	33.7	8.15	14 03										
13.36	15	55.1	98.83	10 15	17.79	3	74.4	3.48	16 30	17.47	3	34.3	8.27	18 48										

25 prec. + $79^{\mathrm{s}}.6$, + 7′ 55″

Area 70. Center for 1900: 2h 16m + 15° 0′ (20′ × 20′)

1—30			
Mag.	α 15^m	x	$y+60'$ y
	s	′	′ ″
17.57 1	38.5	94.81	12 24
18.34 2	39.4	95.02	2 56
16.59 1	39.4	95.03	56 43
16.00 2	39.6	95.07	14 23
17.54 2	39.7	95.09	0 47
11.40w 12	39.9	95.14	6 58
18.24 2	40.5	95.29	1 29
17.10 4	40.7	95.35	59 35
17.56 3	42.2	95.70	57 57
17.24 4	45.7	96.56	58 57
15.61 2	46.0	96.63	13 32
14.39 13	46.5	96.74	10 22
17.28 4	46.8	96.80	2 45
18.14 2	47.5	96.98	12 15
18.14 2	47.8	97.04	6 27
17.72 3	48.6	97.26	3 29
17.65 3	49.4	97.45	55 56
16.57 8	49.6	97.49	3 11
15.77 2	49.6	97.50	13 49
16.74 6	50.2	97.63	10 47
16.10 8	50.5	97.70	5 58
18.32 2	52.3	98.15	9 15
15.80 10	52.3	98.15	6 47
17.17 4	53.9	98.52	5 28
18.13 1	54.3	98.62	14 07
16.25 7	54.9	98.78	55 03
17.48 3	55.0	98.81	55 21
15.06 12	55.2	98.84	7 01
18.19 1	56.8	99.27	13 27
15.74 11	57.8	99.48	55 35

31—60			
Mag.	α 15^m	x	$y+60'$ y
	s	′	′ ″
14.94 13	58.6	99.67	5 56
15.76 10	58.8	99.70	59 52
16.34 8	58.9	99.72	56 13
17.65 4	58.9	99.73	0 57
15.60 11	59.5	99.88	11 30
18.67 2	60.2	0.04	0 47
15.80 11	60.7	0.16	4 03
16.56 6	63.3	0.81	0 38
18.66 1	64.0	0.97	3 40
18.67 2	64.1	1.01	9 30
14.75 12	65.3	1.27	12 20
18.03 3	67.5	1.80	1 59
17.57 3	68.1	1.94	2 06
17.18 6	68.2	1.98	0 10
14.48 14	68.4	2.02	3 08
16.58 6	68.5	2.06	0 04
17.66 3	68.7	2.11	9 20
16.78 7	70.3	2.49	9 53
17.30 3	70.8	2.59	13 17
16.67 8	72.2	2.96	10 05
17.33 4	74.0	3.37	10 51
17.98 2	76.3	3.94	14 27
15.32 11	77.2	4.14	56 03
17.31 3	77.6	4.25	56 53
12.13w 14	77.8	4.31	0 08
8.20w 4	78.7	4.53	3 42
15.03 12	79.1	4.63	12 08
18.34 2	80.1	4.85	5 38
16.23 10	80.4	4.93	5 07
15.66 11	80.9	5.04	10 06

61—90			
Mag.	α 16^m	x	$y+60'$ y
	s	′	′ ″
18.28 2	21.0	5.08	13 42
17.47 4	23.3	5.63	6 29
17.19 4	24.7	5.97	6 15
17.67 4	24.9	6.03	10 25
18.39 3	25.7	6.19	3 09
18.72 1	28.8	6.96	6 09
18.16 2	31.3	7.55	8 05
18.09 3	32.2	7.78	12 04
17.92x 1	33.2	8.02	5 22
17.33n 3	33.9	8.21	5 51
18.21 3	34.8	8.40	2 31
16.87 4	35.5	8.58	56 24
18.12 3	35.6	8.59	10 10
17.66 3	35.8	8.66	59 29
17.28d 1	36.0	8.71	1 26
18.47 3	36.7	8.87	59 40
15.70 10	37.8	9.12	12 58
17.19 3	38.5	9.29	57 18
16.95 5	40.0	9.66	5 56
16.80 5	40.6	9.80	57 18
15.32 12	42.6	10.30	0 43
18.07 3	45.8	11.07	9 52
17.50 3	46.1	11.13	59 41
17.13d 1	46.2	11.14	1 32
15.75 10	46.5	11.22	12 51
17.39 3	48.1	11.62	3 24
18.29 3	48.2	11.64	9 58
17.79 1	48.4	11.69	13 08
18.16 2	48.9	11.81	56 35
16.20 8	49.5	11.96	4 51

91—102			
Mag.	α 16^m	x	$y+60'$ y
	s	′	′ ″
15.83 10	50.7	12.24	1 36
18.33 1	51.9	12.52	13 26
17.77 3	52.1	12.57	5 49
17.85 1	53.0	12.80	55 24
17.17 6	54.8	13.25	4 59
17.68 3	56.5	13.65	8 00
16.74 1	57.2	13.83	14 51
18.06 3	58.1	14.02	1 00
16.67 1	59.0	14.25	14 15
16.92 4	59.4	14.34	1 40
17.42 1	59.5	14.37	12 05
17.56 3	59.6	14.39	59 53

1s—10s			
Mag.	α 15^m	x	$y+60'$ y
	s	′	′
13.44 12	31	93.1	2.1
15.93 6	32	93.2	5.5
17.27 3	35	93.9	6.7
16.62 3	35	94.0	8.6
15.86 8	81	5.2	53.9
17.96 2	87	6.6	54.6
15.84 9	90	7.2	53.6
15.04 10	103	10.4	54.6
13.35 12	125	15.6	4.0
16.45 4	125	15.6	6.0

25 prec. + 81ˢ.8, + 6′ 55″

3h

Area 71. Center for 1900: 3h 11m + 15° 0′ (15′ × 15′)

+ 14°, + 15°

1—20			
Mag.	α 11^m	x	$y+60'$ y
	s	′	′ ″
15.43 11	7.4	1.78	0 56
16.88 7	7.9	1.89	4 04
15.06 12	8.9	2.16	59 08
16.14 9	11.5	2.78	9 28
17.95 3	11.6	2.80	9 10
16.81 7	12.0	2.91	5 52
17.11 5	12.7	3.08	3 58
12.60 15	13.8	3.32	5 05
18.51 1	14.1	3.39	0 41
17.19 3	15.1	3.65	8 20
18.24 3	15.8	3.83	55 12
16.59 8	17.6	4.24	7 20
18.46 1	18.1	4.37	2 12
15.12 12	18.3	4.43	2 05
18.40 1	19.2	4.65	55 03
17.93 3	19.7	4.76	57 54
15.62 10	20.3	4.89	8 06
18.51 1	22.1	5.35	1 05
18.40 1	22.3	5.39	9 00
16.02 10	22.4	5.40	3 31

21—40			
Mag.	α 11^m	x	$y+60'$ y
	s	′	′ ″
18.34 1	23.0	5.55	9 47
16.26 10	23.7	5.72	7 35
15.97d 1	25.4	6.12	57 11
14.72 12	25.5	6.14	59 06
16.81 7	26.0	6.27	3 30
16.05 10	28.6	6.91	58 08
12.39 15	29.4	7.09	3 40
16.97 5	29.6	7.15	59 34
16.89n 1	29.8	7.19	6 58
15.81 10	30.3	7.33	6 11
17.83 3	30.4	7.36	5 49
17.97 3	30.5	7.38	9 58
17.75 3	31.4	7.57	57 47
17.50 5	31.7	7.64	6 27
17.20 7	35.0	8.45	6 50
18.51 1	35.1	8.47	57 42
15.27 12	35.8	8.64	58 12
18.28 3	36.0	8.71	4 35
18.33 2	36.4	8.79	57 56
9.74w 7	37.1	8.96	2 21

41—60			
Mag.	α 11^m	x	$y+60'$ y
	s	′	′ ″
15.09 12	37.2	8.99	6 47
16.96 5	37.4	9.02	8 14
11.40w 11	38.6	9.32	8 11
17.02 7	38.9	9.40	59 23
17.57 3	39.1	9.46	55 47
18.01 3	39.4	9.53	58 59
18.19 3	40.3	9.72	59 20
18.46? 1	42.1	10.17	4 16
17.86 3	44.5	10.74	0 14
17.79 3	45.3	10.95	8 05
17.83 3	45.7	11.04	9 04
17.53 3	47.5	11.47	56 42
16.55 7	47.8	11.55	9 44
17.35 5	48.3	11.67	6 24
18.57 1	48.9	11.81	3 45
18.09 2	48.9	11.81	6 15
14.39: 1	49.0	11.83	5 30
11.92w 14	49.3	11.90	5 44
18.51 1	49.4	11.92	6 35
17.52d 1	50.6	12.22	6 54

61—80			
Mag.	α 11^m	x	$y+60'$ y
	s	′	′ ″
16.92 7	51.8	12.51	55 02
17.02 3	52.2	12.61	7 15
17.81 3	52.4	12.64	8 08
18.20 3	53.6	12.94	1 34
18.26 2	53.7	12.97	58 36
18.08 3	54.1	13.07	2 10
13.32 16	54.7	13.23	9 30
16.05 10	57.3	13.86	58 44
12.98 14	57.6	13.92	1 53
17.12 3	60.2	14.54	4 01
16.99 7	60.3	14.57	2 06
18.15 3	62.1	15.00	4 59
16.12 10	63.2	15.28	3 07
18.28 3	63.3	15.31	5 31
17.61 5	63.5	15.35	1 47
18.17d 1	63.8	15.40	9 51
18.46 1	64.1	15.47	2 21
17.25 5	64.8	15.66	7 33
18.00 3	66.0	15.95	5 37
14.68 12	66.7	16.10	59 42

81—82			
Mag.	α 12^m	x	$y+60'$
	s	′	′ ″
18.46 1	7.1	16.20	59 32
17.65 3	7.2	16.23	56 14

25 prec. + 83ˢ.3, + 5′ 36″

3^{h} Area 71. Supplementary Stars + 14°, + 15°

1s—10s				11s—20s				21s—30s				31s—40s				41s—47s			
Mag.	α 10^{m}	x	$\frac{y+60'}{y}$	Mag.	α 11^{m}	x	$\frac{y+60'}{y}$	Mag.	α 11^{m}	x	$\frac{y+60'}{y}$	Mag.	α 11^{m}	x	$\frac{y+60'}{y}$	Mag.	α 12^{m}	x	$\frac{y+60'}{y}$
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
15.42 9	54	98.6	58.0	16.19 8	6	1.4	5.5	17.17 4	28	6.8	52.4	15.27 10	43	10.3	11.4	18.10 2	4	15.4	54.4
17.72 2	56	99.0	56.6	17.62 2	6	1.5	56.0	15.73 8	29	6.9	10.4	16.10 8	45	10.8	53.6	17.24 2	10	16.8	57.3
13.26 14	57	99.2	2.0	16.34 7	6	1.5	3.2	17.05 4	29	6.9	12.4	15.85 8	45	10.8	54.9	14.96 10	11	17.2	57.6
16.17 7	57	99.2	3.9	15.12 10	12	2.8	53.1	14.38 12	29	7.1	11.8	15.23 10	47	11.4	13.4	17.18 2	13	17.6	56.6
15.66 8	61	0.2	2.8	17.48 2	19	4.5	54.4	15.68 9	30	7.2	52.2	17.84 2	49	11.9	13.2	16.98 4	13	17.6	57.8
17.86 2	63	0.6	56.8	17.15 4	19	4.6	11.4	15.46 9	34	8.2	53.6	17.24 4	51	12.2	54.7	17.20 4	16	18.4	4.5
15.81 8	63	0.7	56.4	15.66 8	21	5.0	53.0	17.18 2	36	8.8	54.2	16.26 6	53	12.8	10.2	16.82 4	17	18.6	6.6
17.89 2	65	1.1	5.9	17.68 2	21	5.0	53.6	16.96 5	37	9.0	11.4	17.10 4	53	12.9	10.3				
16.92 2	66	1.4	54.5	10.92 9	26	6.4	53.2	15.84 8	40	9.6	53.9	17.84 2	56	13.6	53.0				
16.86 6	66	1.4	5.0	18.08 2	27	6.6	52.5	15.09 10	40	9.7	50.9	17.98 2	57	13.7	52.4				

25 prec. + 83$^{\mathrm{s}}$.3, + 5′ 36″

4^{h} Area 72. Center for 1900: 4^{h} 10^{m} + 15° 10′ (15′ × 15′) + 15°

1—40				41—80				81—120				121—141			
Mag.	α 9^{m}	x	$y+10'$	Mag.	α 9^{m}	x	$y+10'$	Mag.	α 10^{m}	x	$y+10'$	Mag.	α 10^{m}	x	$y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.08 3	36.2	94.26	14 42	18.00 1	52.7	98.26	6 25	17.25 7	11.5	2.77	6 31	17.76 1	26.8	6.47	2 37
17.79 1	37.6	94.61	5 46	17.73 3	53.6	98.45	13 15	17.97 1	11.5	2.77	13 04	17.02 5	26.8	6.48	12 57
17.74 1	38.8	94.87	5 00	17.76 2	54.4	98.66	5 42	16.73 9	11.8	2.84	10 07	17.90 1	27.1	6.56	1 57
17.94 1	38.9	94.91	10 03	17.74 1	54.9	98.78	13 54	17.74 1	12.4	2.99	4 28	16.73 8	27.8	6.73	12 40
14.01 15	39.3	95.01	2 37	16.26 8	56.1	99.06	7 56	16.57 9	12.8	3.09	10 11	16.86 7	28.3	6.83	14 49
17.90 1	39.5	95.04	8 57	17.90 1	56.5	99.14	0 01	17.76 1	13.1	3.18	6 48	17.79? 1	29.0	7.00	10 58
15.94 9	39.9	95.14	0 14	16.59 9	56.9	99.25	13 51	17.33 3	13.2	3.21	6 06	17.54 3	30.3	7.33	3 21
15.29 11	41.5	95.52	2 13	13.13w14	57.5	99.41	10 33	17.74 1	13.7	3.30	12 56	17.58 2	30.9	7.46	2 44
16.99 4	42.1	95.67	3 08	17.61 3	59.1	99.77	1 21	17.63 3	14.5	3.51	4 19	17.63 1	31.3	7.56	6 16
16.63 8	42.1	95.67	12 04	17.76 1	59.4	99.84	3 33	17.88 2	14.5	3.51	7 35	17.68 1	31.4	7.57	5 42
17.62 3	43.0	95.91	6 00	17.94 1	59.4	99.85	3 01	17.63 3	15.0	3.63	14 37	17.68 1	31.5	7.60	3 01
17.55 3	43.9	96.11	4 22	18.00 2	60.5	0.13	9 49	15.61 10	15.3	3.69	6 31	17.41 3	31.9	7.71	7 14
17.87 2	44.2	96.17	5 53	17.25d 1	61.3	0.32	5 43	17.94 1	15.9	3.84	13 43	17.94 1	32.5	7.86	7 23
17.76 1	44.3	96.19	14 30	17.90 1	61.4	0.34	0 19	17.97 1	16.9	4.07	5 16	17.35 3	33.4	8.08	7 37
17.55 3	44.7	96.30	10 09	17.89 2	62.0	0.47	5 58	17.45 3	17.0	4.09	13 28	15.90 9	33.9	8.20	0 08
17.73 3	44.9	96.34	8 40	16.89 8	62.9	0.71	12 06	17.87? 1	17.6	4.24	12 29	17.59 3	33.9	8.21	5 09
15.22 11	45.2	96.42	8 24	17.25 7	63.8	0.92	7 40	17.84 1	17.8	4.30	10 06	15.80 9	34.3	8.28	2 57
17.72 2	45.3	96.46	6 39	17.76 2	64.2	1.02	4 30	17.78 2	18.0	4.34	10 09	17.52 3	35.6	8.59	3 35
17.94 1	45.8	96.58	14 50	18.00 1	64.3	1.04	5 25	18.00 1	18.5	4.48	11 13	17.81 1	35.9	8.67	12 43
17.90 1	45.9	96.59	2 16	18.06 1	64.3	1.04	8 09	17.54 3	18.6	4.49	5 15	17.25 3	36.2	8.76	5 18
17.96 2	46.8	96.80	8 29	17.94 2	65.0	1.20	10 50	17.71 1	19.3	4.67	1 50	17.90 1	36.6	8.85	7 28
16.74 8	47.5	96.97	11 55	17.71 1	65.1	1.23	1 24	17.71 1	19.9	4.81	11 46				
17.72 3	47.6	96.99	4 03	6.89w 6	65.4	1.29	9 02	17.29 2	20.1	4.85	8 06				
15.97 9	47.7	97.02	2 22	15.14 11	65.4	1.29	14 46	17.45 3	20.5	4.96	5 28				
17.76 2	47.9	97.07	11 32	17.87 1	65.4	1.31	10 42	17.97 1	20.7	5.01	11 59				
17.48 3	48.4	97.19	2 41	17.81 1	65.6	1.36	3 22	17.94 1	21.6	5.23	5 25				
17.97 1	48.5	97.22	4 53	17.20 5	67.2	1.75	11 30	17.60 3	21.7	5.25	3 04				
17.76 1	48.6	97.25	5 23	17.50 1	68.3	1.99	8 37	17.97 1	21.9	5.31	9 04				
17.80 2	49.7	97.52	9 45	17.84 2	68.3	2.00	6 19	16.88 7	23.4	5.64	14 12				
17.63 1	49.9	97.56	14 21	17.71 1	68.5	2.05	5 09	14.44 14	24.0	5.79	2 31				
16.22 9	50.2	97.62	2 15	17.84 2	68.7	2.10	6 02	16.08 9	24.0	5.80	2 46				
17.97 1	50.3	97.64	5 22	17.21 7	69.5	2.29	7 41	17.90 1	24.4	5.89	14 36				
17.41 3	50.4	97.67	0 09	17.54 2	69.7	2.34	12 19	17.69 3	24.5	5.92	11 51				
17.65 1	50.7	97.76	8 25	17.46d 1	69.8	2.37	5 44	16.18 9	24.6	5.94	0 11				
17.63 1	51.0	97.82	2 12	16.43 8	70.3	2.48	8 17	16.80 8	24.6	5.95	12 35				
17.75 2	51.7	98.00	7 39	16.95 7	70.3	2.48	10 57	17.94 1	25.0	6.05	5 51				
17.52 3	51.9	98.06	0 12	17.22 3	70.4	2.50	5 08	17.64 2	25.2	6.08	4 47				
17.48 3	52.1	98.11	1 43	14.02w12	70.5	2.53	11 00	17.94 1	25.5	6.15	11 25				
17.74 1	52.1	98.11	6 27	17.79 1	70.9	2.62	7 06	17.02 5	25.6	6.18	8 41				
17.52 3	52.2	98.13	0 02	17.80 2	71.0	2.66	4 50	17.60 1	26.3	6.36	3 21				

25 prec. + 84$^{\mathrm{s}}$.8, + 3′ 51″

Area 72. Supplementary Stars

1s—20s					21s—40s					41s—55s				
Mag.		α 9^m	x	$\frac{y+70'}{y+10'}$	Mag.		α 9^m	x	$\frac{y+70'}{y+10'}$	Mag.		α 10^m	x	$\frac{y+70'}{y+10'}$
		s	′	′			s	′	′			s	′	′
17.33	2	20	90.4	10.9	16.49	6	47	97.0	16.4	17.11	2	24	5.9	59.6
17.31	2	22	90.9	4.9	14.57	12	48	97.2	17.4	15.52	7	27	6.4	15.4
17.37	2	23	91.1	8.1	13.67	15	49	97.4	59.5	17.11	2	31	7.6	16.4
17.39	2	24	91.4	9.6	17.19	2	51	97.8	16.9	16.47	4	32	7.6	18.4
15.70	7	24	91.4	14.6	17.19	2	51	97.8	18.8	16.61	4	32	7.7	17.8
17.35	2	26	91.7	5.0	17.58	2	52	98.0	15.2	17.21	2	33	8.0	16.2
14.69	10	28	92.2	3.8	17.41	2	54	98.6	18.6	17.33	2	34	8.2	17.2
17.45	2	29	92.4	9.4	16.96	2	57	99.4	58.2	17.01	2	37	9.0	4.7
15.46	8	29	92.6	12.3	16.75	4	61	0.2	17.8	16.43	6	38	9.2	16.4
17.44	2	30	92.7	10.0	16.88	3	64	1.0	15.8	17.33	2	39	9.4	1.4
17.37	2	30	92.8	14.5	16.99	4	64	1.0	15.9	17.31	2	39	9.4	8.2
15.34	9	31	92.9	2.8	17.30	2	65	1.2	59.2	17.19	2	40	9.6	16.6
17.53	2	31	93.0	10.8	17.41	2	65	1.2	17.8	16.47	5	43	10.4	7.6
17.44	2	33	93.5	13.8	17.09	2	68	2.0	59.8	17.23	2	44	10.7	8.0
17.45	2	34	93.8	8.6	14.26	12	71	2.6	19.8	16.86	2	52	12.6	8.8
15.86	7	37	94.4	17.6	16.68	6	71	2.8	19.0					
15.76	7	40	95.2	16.4	15.84	7	76	3.8	19.9					
17.21	2	41	95.3	59.9	16.63	6	76	3.9	16.4					
17.29	2	44	96.1	18.5	17.15	2	82	5.3	58.9					
17.41	2	44	96.2	0.0	17.50	2	84	5.8	15.9					

25 prec. + 84^s.8, + 3′ 51″

5^h

Area 73. Center for 1900: 5^h 14^m + 15° 0′ (15′ × 15′)

+ 14°, + 15°

1—30					31—60					61—90					91—120					121—150				
Mag.		α 14^m	x	$\frac{y+60'}{y}$	Mag.		α 14^m	x	$\frac{y+60'}{y}$	Mag.		α 14^m	x	$\frac{y+60'}{y}$	Mag.		α 14^m	x	$\frac{y+60'}{y}$	Mag.		α 14^m	x	$\frac{y+60'}{y}$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
18.29	1	22.4	5.40	0 17	18.11	1	27.4	6.63	56 38	14.41	14	32.2	7.78	2 05	16.29	8	37.4	9.02	1 50	18.16	1	42.9	10.36	58 25
18.04	1	22.5	5.42	57 50	16.45	9	27.5	6.66	57 46	18.08	2	32.3	7.81	4 14	17.42	3	37.5	9.04	59 53	16.83	6	42.9	10.36	50 27
17.06	4	22.6	5.46	59 59	16.43	9	27.6	6.68	59 37	17.98	2	32.4	7.82	53 04	18.42	1	37.5	9.06	53 09	18.16	1	43.5	10.49	53 02
17.78	1	22.8	5.51	51 36	14.18	12	27.8	6.73	0 44	18.42	1	32.6	7.87	0 11	18.42	1	37.7	9.11	59 23	17.88	2	43.5	10.50	54 08
17.77	3	23.1	5.57	59 38	17.36	3	28.0	6.76	56 32	18.35	1	32.6	7.88	58 15	17.62	3	37.8	9.12	4 07	15.84	9	43.7	10.55	50 15
17.72	3	23.1	5.57	56 02	18.35	1	28.0	6.77	57 35	18.35	1	32.9	7.96	1 05	16.62	8	37.8	9.12	0 26	18.16	1	43.8	10.57	57 40
16.39	9	23.2	5.61	0 32	18.35	1	28.5	6.87	59 38	17.78	2	32.9	7.96	3 42	16.03	9	37.8	9.13	52 45	17.84d	1	43.9	10.60	52 19
17.84	1	23.6	5.71	58 06	17.69	3	28.5	6.87	57 58	15.96	9	33.0	7.98	0 31	17.80	3	37.9	9.14	58 48	17.94	2	44.0	10.62	0 40
17.09	4	23.7	5.72	3 19	18.04	1	28.6	6.90	52 07	17.18	5	33.1	8.00	55 32	18.29	1	38.0	9.18	50 48	18.04	2	44.1	10.64	1 27
17.78	1	23.9	5.78	4 12	16.55	7	28.6	6.90	52 50	18.16	1	33.3	8.05	56 20	17.48	2	38.0	9.18	0 06	17.73	3	44.2	10.68	4 48
16.45	8	23.9	5.78	54 36	18.35	1	28.9	6.98	55 58	18.16	1	33.8	8.18	55 57	14.57	14	38.1	9.21	56 56	16.29	8	44.6	10.77	54 08
18.35	1	24.3	5.88	55 12	18.35	1	29.0	6.99	54 55	16.60	8	34.8	8.40	59 37	17.86	2	38.4	9.26	55 11	17.90	2	44.8	10.83	4 01
17.75	3	25.0	6.05	56 58	18.35	1	29.3	7.07	52 09	17.90	3	34.9	8.42	57 23	18.11	1	38.4	9.28	55 02	13.11w	12	44.8	10.83	2 38
18.35	1	25.5	6.16	56 56	17.92	3	29.4	7.11	55 29	16.48	9	35.1	8.47	57 50	15.00	12	38.8	9.38	54 41	18.22	1	45.0	10.88	52 31
15.65	9	25.7	6.19	59 43	15.77	9	29.6	7.14	55 41	17.06	4	35.1	8.47	57 54	16.93	5	39.1	9.44	52 25	16.47	9	45.1	10.90	50 29
17.53	3	25.7	6.19	1 35	18.35	1	30.0	7.24	58 11	17.86	3	35.1	8.48	51 16	17.90	3	39.3	9.50	53 08	17.19	5	45.2	10.92	53 01
18.22	1	25.8	6.23	50 28	18.16	1	30.5	7.38	2 25	16.21	9	35.2	8.49	56 11	18.47	1	39.3	9.50	54 56	13.86	13	45.5	11.00	52 23
17.78	2	26.1	6.30	53 17	14.39	14	30.6	7.39	51 44	15.42	11	35.2	8.50	55 41	14.70	12	39.5	9.56	50 08	17.94	2	45.6	11.02	3 53
17.72	3	26.1	6.30	55 52	17.76	2	30.6	7.40	54 54	16.55	8	35.7	8.62	54 29	15.87	9	40.0	9.66	55 15	18.55	1	45.7	11.04	57 28
17.13	4	26.2	6.32	59 58	18.05	2	30.9	7.46	4 08	16.32	9	36.0	8.71	4 34	17.78	3	40.0	9.66	3 56	14.66	13	45.8	11.06	58 41
17.58	3	26.3	6.34	57 29	17.06	3	31.0	7.49	52 08	15.96	9	36.3	8.78	53 30	17.94	2	40.1	9.68	54 25	17.47	4	46.3	11.17	1 56
18.04	1	26.7	6.44	51 54	16.02	9	31.1	7.50	51 05	17.84	1	36.3	8.78	54 52	15.25	10	40.1	9.69	59 36	15.23	11	46.4	11.21	3 32
16.62	8	26.7	6.46	56 17	18.35	1	31.3	7.55	58 33	15.83	8	36.6	8.84	52 52	18.11	1	40.3	9.73	53 47	18.29	1	47.1	11.37	3 57
17.71	3	26.8	6.47	2 58	18.05	2	31.4	7.57	4 31	18.04	1	36.6	8.84	2 17	17.89	3	40.8	9.84	50 57	18.35	1	47.5	11.47	55 22
18.02	2	26.8	6.47	4 59	17.90	3	31.4	7.58	2 35	17.04	6	36.7	8.88	58 12	18.11	1	41.6	10.05	50 50	17.72	3	47.5	11.48	0 37
18.29	1	26.8	6.48	51 01	17.83	3	31.8	7.68	0 07	17.71	1	36.8	8.89	0 51	14.54	11	41.8	10.09	4 47	17.18	3	47.9	11.58	4 12
17.77	3	26.8	6.48	58 23	14.45	13	31.9	7.71	52 16	17.90	2	36.8	8.90	51 15	15.91	8	41.8	10.11	2 04	17.15	4	47.9	11.58	4 40
18.35	1	26.9	6.51	59 00	17.83	3	32.1	7.75	59 24	16.49	7	37.0	8.94	1 32	16.52	9	42.2	10.19	52 52	16.58	8	48.0	11.60	1 55
17.03	4	26.9	6.51	1 45	18.29	1	32.1	7.75	3 59	14.32	13	37.1	8.97	2 56	18.42	1	42.4	10.26	59 18	18.35	1	48.0	11.61	59 29
18.35	1	27.1	6.56	58 32	18.35	1	32.2	7.78	1 31	17.86	3	37.3	9.01	2 44	18.47?	1	42.5	10.27	57 04	18.01	2	48.1	11.62	1 37

25 prec. + 85^s.5, + 1′ 38″

151—210					211—270					271—330					331—378				
Mag.		α 14^m	x	$y+60'$ y	Mag.		α 14^m	x	$y+60'$ y	Mag.		α 15^m	x	$y+60'$ y	Mag.		α 15^m	x	$y+60'$ y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
17.31	3	48.2	11.66	2 50	18.35	1	57.3	13.85	4 33	16.06	9	6.2	16.00	59 40	14.59	13	14.8	18.07	56 06
16.59	9	48.4	11.69	3 02	16.68	7	57.4	13.87	1 40	17.41	3	6.2	16.00	1 31	16.53	7	14.9	18.10	3 29
15.54	9	48.4	11.69	56 12	17.84	1	57.5	13.89	2 11	16.61	7	6.2	16.01	58 23	17.84	1	14.9	18.11	2 55
14.44	13	48.4	11.71	52 56	17.37	4	57.6	13.92	3 32	18.29	1	6.4	16.05	57 06	18.42	1	15.1	18.14	58 15
17.96	2	48.7	11.76	59 56	16.10	7	57.8	13.97	56 07	17.60	3	6.7	16.10	50 54	16.92	6	15.1	18.15	59 26
18.47	1	48.7	11.77	0 25	18.42	1	57.8	13.97	52 24	17.81	2	7.1	16.20	52 28	17.85	3	15.6	18.27	57 21
18.11	3	48.7	11.77	0 34	17.90	3	57.8	13.97	53 23	17.15	4	7.7	16.35	59 01	17.70	2	15.9	18.32	59 36
17.81	2	48.9	11.81	57 22	14.04	15	57.9	13.98	1 10	18.35	1	7.9	16.39	52 15	16.93	4	15.9	18.32	3 39
18.42	1	49.0	11.82	53 11	14.44	14	58.3	14.08	0 16	16.88	6	8.2	16.48	56 39	17.94	3	16.2	18.40	55 13
16.33	9	49.4	11.92	59 35	17.73	3	58.6	14.14	3 46	15.80	9	8.3	16.51	3 50	17.88	2	16.3	18.42	51 01
17.46	3	49.6	11.97	53 02	17.76	2	58.6	14.14	52 49	18.16	1	8.5	16.56	59 18	17.98	1	16.7	18.52	55 03
17.44	3	50.2	12.13	52 02	16.09	8	58.7	14.18	56 32	18.47	1	8.7	16.59	58 08	18.04	2	16.8	18.53	53 22
18.16	2	50.2	12.13	0 02	15.65	9	59.3	14.33	54 36	17.04	6	8.7	16.59	56 43	16.20	8	16.8	18.54	50 30
17.96	2	50.3	12.14	2 20	17.50	4	59.4	14.34	59 02	13.60	16	8.9	16.66	4 15	17.19	4	16.8	18.56	3 24
17.94	2	50.3	12.15	3 30	16.28	9	59.5	14.38	52 47	17.78	2	9.0	16.67	58 49	16.80	6	17.1	18.63	52 55
16.10	8	50.4	12.18	3 37	17.42	3	60.1	14.52	59 08	18.42	1	9.0	16.68	58 40	17.08	3	17.3	18.68	0 04
17.37	3	50.5	12.19	4 53	17.96	3	60.6	14.65	50 05	17.49	3	9.1	16.71	0 30	14.77	13	17.5	18.72	53 49
17.89	3	50.5	12.19	50 22	17.98	3	60.7	14.67	50 58	18.35	1	9.2	16.72	2 33	16.86	6	17.6	18.75	56 01
18.42	1	50.6	12.22	51 22	18.04	1	60.9	14.71	55 43	18.11	1	9.2	16.73	53 35	18.35	1	17.8	18.81	1 42
17.73	3	50.6	12.22	54 29	17.42	4	61.2	14.77	57 08	16.40	9	9.3	16.74	2 17	18.35	1	18.1	18.88	0 18
18.35	1	51.8	12.50	3 14	17.01	6	61.2	14.78	55 10	18.16	1	9.5	16.78	53 30	16.24	9	18.4	18.95	55 00
17.86	2	51.8	12.50	52 35	17.69	3	61.3	14.80	50 14	17.94	2	9.8	16.84	57 16	17.69	3	18.6	18.98	0 57
17.94	2	52.1	12.58	54 36	16.79	6	61.3	14.80	51 16	17.74	2	9.9	16.88	59 26	17.75	2	18.7	19.00	0 09
16.24	9	52.1	12.58	50 15	17.93	3	61.4	14.82	58 16	17.82	2	9.9	16.88	55 32	17.85	3	19.1	19.10	57 28
17.94	2	52.2	12.60	53 54	16.90	6	61.4	14.83	1 27	15.70	8	10.2	16.95	55 44	18.29	1	19.2	19.13	3 32
17.72	2	52.6	12.71	59 45	18.28	2	61.6	14.88	0 45	17.95	2	10.4	17.00	58 15	17.24	3	19.3	19.16	52 33
17.04	6	52.7	12.73	0 37	14.67	13	61.8	14.92	2 28	17.71	1	10.5	17.03	53 11	18.29	1	19.4	19.17	2 20
16.61	8	53.1	12.82	59 05	14.73	13	62.1	15.01	55 41	17.92	3	10.7	17.07	56 06	18.04	1	19.7	19.26	56 28
17.77	2	53.2	12.86	57 54	17.45	3	62.2	15.02	3 46	17.98	1	10.8	17.09	53 36	17.94	2	19.9	19.30	54 12
17.11	6	53.2	12.86	56 21	17.82	2	62.5	15.09	1 11	17.91	3	11.0	17.15	3 06	15.83	9	19.9	19.31	0 06
8.34w	8	53.2	12.87	57 28	17.90	2	62.5	15.09	3 53	16.77	6	11.1	17.18	53 45	17.78	3	20.1	19.36	1 54
16.96	8	53.3	12.88	58 28	18.04	1	62.5	15.10	57 47	17.88	3	11.3	17.22	59 53	14.97	11	20.1	19.36	4 19
16.47	6	53.5	12.92	57 02	17.95	3	62.9	15.19	3 08	16.88	6	11.4	17.24	3 36	18.29	1	21.1	19.60	51 06
15.29	10	53.8	12.99	53 28	18.47	1	62.9	15.19	0 17	15.15	11	11.8	17.36	4 26	16.45	9	21.2	19.63	0 26
15.96	9	53.9	13.02	2 46	17.93	3	62.9	15.20	59 22	17.43	3	11.8	17.36	56 54	17.86	2	21.4	19.67	2 45
16.60	8	54.1	13.07	1 22	17.37	4	63.2	15.27	59 56	18.29	1	12.0	17.39	50 01	17.16	4	21.4	19.67	50 22
17.72	3	54.2	13.11	50 09	17.78	1	63.3	15.30	3 58	16.20	7	12.4	17.48	57 19	17.63	4	21.9	19.78	54 56
18.04	1	54.3	13.12	3 38	15.97	8	63.4	15.32	2 11	17.79	3	12.4	17.48	57 23	18.29	1	21.9	19.78	3 37
18.12	2	54.5	13.17	53 36	18.04	1	63.5	15.34	59 18	18.22	1	12.5	17.50	53 36	17.82	3	22.0	19.79	2 47
18.55	1	54.5	13.17	58 37	17.94	2	63.5	15.35	54 01	17.50	3	12.7	17.56	1 55	17.66	3	22.0	19.80	3 28
16.55	8	54.6	13.21	3 48	18.47	1	64.0	15.44	54 38	16.82	6	12.8	17.58	55 16	17.88	2	22.2	19.84	53 03
18.04	1	54.8	13.24	59 27	17.86	2	64.0	15.44	52 02	17.94	3	13.1	17.66	55 20	14.72	13	22.2	19.86	58 26
18.42	1	54.9	13.25	51 53	18.47	1	64.2	15.49	59 02	15.63	9	13.2	17.67	4 13	17.17	4	22.6	19.96	59 31
17.45	5	54.9	13.26	56 13	18.42	1	64.3	15.53	2 08	17.15	6	13.2	17.67	56 57	17.63	1	22.9	20.04	56 58
17.04	5	54.9	13.26	52 43	14.45	12	64.4	15.55	57 25	14.67	13	13.2	17.67	59 07	17.27	3	23.1	20.08	2 03
17.24	4	55.0	13.28	2 42	18.47	1	64.5	15.57	54 35	16.26	9	13.2	17.68	0 42	17.79	3	23.2	20.11	2 25
15.94	9	55.1	13.30	51 10	16.70	6	64.5	15.58	0 04	17.63*	1	13.2	17.68	52 36	16.07	8	23.5	20.18	57 47
17.48	3	55.1	13.31	51 59	18.04	1	64.6	15.61	54 22	17.63	1	13.3	17.69	52 33	17.47	3	23.7	20.22	3 52
18.35	1	55.4	13.38	4 10	18.11	1	64.9	15.68	4 23	17.94	2	13.3	17.70	50 00					
18.62	1	55.6	13.42	58 02	18.35	1	65.0	15.70	50 35	17.09	4	13.5	17.76	4 38					
17.82	2	55.9	13.49	52 34	17.31	4	65.3	15.78	1 25	18.01	3	13.6	17.77	57 33					
17.18	6	55.9	13.51	58 07	18.04	1	65.3	15.79	2 35	17.84	2	13.6	17.78	55 35					
16.80	7	56.0	13.52	56 38	18.35	1	65.5	15.82	3 58	18.10	2	13.9	17.86	4 32					
18.12	2	56.3	13.59	50 55	14.63	13	65.5	15.83	1 33	17.70	4	14.0	17.87	2 05					
16.41	8	56.3	13.59	54 58	16.20	8	65.6	15.85	2 53	18.16	1	14.4	17.98	0 22					
16.13	8	56.3	13.59	55 14	18.42	1	65.6	15.86	59 08	15.65	9	14.5	17.99	51 50					
17.62	3	56.3	13.60	57 37	15.90	8	65.9	15.93	4 22	18.42	1	14.5	18.00	59 17					
17.94	2	56.5	13.66	57 04	18.04	2	66.0	15.94	3 41	17.86	2	14.5	18.01	53 38					
17.60	2	56.7	13.69	51 12	16.73	7	66.0	15.94	54 25	17.59	3	14.7	18.04	50 39					
17.71	3	56.7	13.69	51 59	17.04	6	66.0	15.96	58 49	17.78	3	14.7	18.06	2 15					

25 prec. + $85^s.5$, + 1′ 37″

1s—60s				
Mag.		α 14^m	x	$\frac{y+60'}{y}$
		s	′	′
16.14	7	8	2.0	55.6
17.28	2	8	2.0	57.6
14.91	9	8	2.0	59.8
16.96	2	9	2.2	0.2
14.55	11	10	2.3	0.0
17.51	2	11	2.6	0.3
16.65	4	11	2.7	57.6
17.58	2	11	2.7	0.0
14.65	11	12	2.8	1.4
17.58	2	12	2.9	58.5
17.68	2	12	3.0	55.4
17.32	2	13	3.1	54.6
16.19	7	13	3.1	58.9
17.30	2	13	3.2	53.2
13.93	11	13	3.2	54.4
16.24	7	14	3.3	54.7
17.67	2	14	3.4	2.4
16.19	7	15	3.6	51.0
16.78	4	15	3.6	54.6
15.54	8	15	3.6	56.8
17.44	2	15	3.6	58.3
17.70	2	15	3.7	54.2
17.67	2	15	3.7	58.8
13.02	11	15	3.7	2.0
17.54	2	15	3.7	4.5
17.60	2	16	3.8	52.7
17.36	2	16	3.8	56.6
16.90	4	16	4.0	53.9
15.85	7	17	4.0	55.8
16.14	7	17	4.0	3.8
17.50	2	18	4.2	50.6
17.60	2	17	4.2	52.8
16.71	4	18	4.4	56.6
17.34	2	19	4.6	52.8
17.98	2	19	4.6	55.0
15.71	6	19	4.6	4.4
16.96	4	19	4.7	56.4
17.84	2	20	4.8	50.0
17.31	2	20	4.8	56.2
16.70	4	20	4.9	55.2
15.93	7	20	4.9	55.8
17.40	2	21	5.0	49.2
17.62	2	21	5.1	59.2
17.55	2	22	5.2	51.2
16.13	7	22	5.2	53.4
17.31	2	22	5.3	51.6
17.56	2	24	5.7	49.8
16.59	4	24	5.9	6.1
16.15	7	29	7.0	7.4
16.34	7	30	7.2	49.3
14.98	9	30	7.2	5.2
17.76	2	30	7.3	5.8
17.62	2	31	7.6	48.4
14.46	9	33	7.9	5.0
16.53	4	34	8.1	49.2
16.43	7	34	8.2	5.2
17.44	2	35	8.5	47.4
17.74	2	36	8.6	49.0
17.26	2	36	8.6	49.6
16.31	6	37	9.0	7.0

61s—120s				
Mag.		α 14^m	x	$\frac{y+60'}{y}$
		s	′	′
17.52	2	37	9.0	8.0
17.86	2	39	9.3	6.4
14.91	7	39	9.4	6.0
17.52	2	40	9.7	48.4
14.85	9	40	9.7	8.3
16.56	4	41	9.8	49.2
17.74	2	40	9.8	6.6
17.62	2	41	9.8	7.2
17.82	2	41	9.8	8.0
15.20	7	40	9.8	8.6
14.75	10	41	10.0	47.4
14.91	10	42	10.0	49.0
17.84	2	42	10.2	47.3
17.71	2	42	10.2	49.4
16.24	7	44	10.6	48.4
16.53	6	44	10.6	5.4
16.24	7	44	10.6	7.6
15.93	7	44	10.8	47.0
16.52	6	45	10.8	49.2
17.58	2	45	10.8	6.0
15.99	7	45	10.9	5.6
13.36	12	46	11.1	6.4
15.94	7	47	11.2	47.2
16.68	4	46	11.2	8.4
16.88	2	46	11.2	8.6
17.91	2	48	11.5	6.2
18.02	2	48	11.6	49.8
17.82	2	50	12.1	6.6
14.88	10	51	12.2	47.2
17.84	2	51	12.2	48.2
17.60	2	51	12.2	7.3
17.62	2	51	12.2	7.8
17.44	2	51	12.3	47.3
13.02	13	52	12.4	49.4
16.43	6	52	12.6	47.4
17.00	2	53	12.8	47.4
14.93	10	53	12.8	50.0
16.88	2	53	12.8	8.2
15.86	7	54	13.0	47.4
17.97	2	54	13.0	5.1
17.80	2	54	13.0	8.4
17.64	2	55	13.2	6.7
16.25	7	55	13.2	7.0
15.00	6	55	13.4	46.4
17.48	2	58	13.9	47.4
17.64	2	58	13.9	7.7
15.90	7	58	14.0	48.4
17.84	2	59	14.2	48.7
16.48	5	59	14.2	49.1
17.80	2	61	14.6	47.9
17.88	2	60	14.6	5.3
17.84	2	61	14.7	6.4
17.60	2	62	14.9	48.8
16.19	6	62	14.9	8.8
17.78	2	62	15.0	48.4
15.65	8	62	15.0	49.6
17.92	2	62	15.0	50.0
17.84	2	62	15.0	5.6
16.13	7	63	15.1	5.4
15.70	7	63	15.3	7.4

121s—180s				
Mag.		α 15^m	x	$\frac{y+60'}{y}$
		s	′	′
17.60	2	4	15.4	5.3
16.48	5	6	15.9	48.9
17.64	2	6	16.0	49.6
17.74	2	6	16.0	5.1
15.75	7	7	16.1	5.9
17.28	2	7	16.2	46.8
16.25	7	7	16.2	48.2
17.84	2	9	16.6	48.0
17.52	2	9	16.6	48.8
17.39	2	10	16.8	49.2
17.80	2	10	16.9	7.5
17.43	2	10	17.0	49.9
17.98	2	10	17.0	6.4
17.46	2	11	17.2	47.4
16.54	4	12	17.4	5.4
17.46	2	13	17.6	7.3
17.20	2	14	17.9	49.2
17.12	2	15	18.0	6.4
16.07	5	15	18.0	6.6
17.28	2	15	18.2	6.1
17.74	2	22	19.8	49.2
17.24	2	22	19.8	6.4
17.80	2	23	20.0	6.0
14.11	10	24	20.4	59.1
16.70	4	26	20.8	59.4
17.54	2	26	20.8	59.6
17.88	2	27	20.9	56.8
17.56	2	27	20.9	3.1
17.84	2	27	20.9	4.2
15.35	8	27	21.0	51.3
16.55	4	27	21.0	51.8
13.23	14	27	21.0	59.6
17.84	2	27	21.1	58.4
17.60	2	28	21.2	55.2
17.68	2	28	21.3	56.0
17.91	2	28	21.3	57.9
17.80	2	29	21.4	51.4
15.29	8	29	21.4	55.5
16.62	4	29	21.5	4.4
14.90	9	29	21.5	4.7
14.87	10	29	21.6	53.0
16.21	7	29	21.6	56.8
12.00	13	29	21.6	58.0
17.60	2	29	21.6	1.4
16.14	7	30	21.7	50.8
17.98	2	30	21.7	54.5
17.93	2	30	21.7	55.2
16.50	4	30	21.7	4.3
16.27	7	30	21.8	51.9
17.93	2	30	21.8	57.6
16.94	2	31	21.9	59.8
17.54	2	31	21.9	2.4
17.69	2	32	22.1	58.9
16.23	7	32	22.2	53.0
17.80	2	32	22.2	54.1
17.04	2	32	22.2	56.6
17.37	2	32	22.3	56.1
17.76	2	32	22.3	56.6
17.18	2	32	22.3	0.4
16.57	3	33	22.4	1.6

181s—189s				
Mag.		α 15^m	x	$\frac{y+60'}{y}$
		s	′	′
16.17	7	33	22.4	3.2
17.80	2	33	22.5	54.0
17.17	2	34	22.7	59.2
16.49	4	35	23.0	57.6
16.05	7	36	23.1	58.9
17.01	2	36	23.1	1.8
17.67	2	36	23.2	57.4
17.76	2	36	23.2	1.1
17.64	2	36	23.2	2.4

25 prec. + 85ˢ.5, + 1′ 37″

Area 74. Center for 1900: 6h 15m + 15° 10′ (15′ × 15′)

1—60					61—120					121—180					181—240					241—300				
Mag.		α 14^m	x	$y+10'$	Mag.		α 14^m	x	$y+10'$	Mag.		α 14^m	x	$y+10'$	Mag.		α 15^m	x	$y+10'$	Mag.		α 15^m	x	$y+10'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
15.64	10	43.6	96.05	5 53	16.74	6	50.9	97.79	8 03	17.54	3	57.5	99.40	13 35	18.94	2	6.6	1.60	6 53	18.60	3	13.8	3.32	5 18
17.83	3	43.7	96.06	9 38	15.27	10	51.1	97.85	7 05	17.28	3	57.5	99.41	2 54	16.68	7	6.8	1.65	7 00	17.82	3	13.9	3.34	7 33
18.60	3	43.7	96.06	10 24	17.28	5	51.1	97.85	10 52	16.86	4	57.6	99.43	2 49	17.54	3	6.8	1.65	2 24	17.67	3	13.9	3.34	2 45
17.73	3	43.8	96.08	2 06	16.83	6	51.3	97.91	10 13	18.84	2	57.9	99.50	5 53	16.67	7	6.9	1.67	4 20	17.79	3	13.9	3.36	5 14
17.89	3	44.0	96.12	13 48	16.38	9	51.4	97.92	4 21	18.30	3	58.1	99.54	10 53	16.69	6	6.9	1.68	6 58	18.69	3	14.3	3.45	13 19
18.47	3	44.0	96.13	3 02	18.04	2	51.5	97.94	6 41	18.92	1	58.3	99.59	2 19	17.57	3	7.4	1.79	11 18	8.89w	6	14.7	3.55	5 50
18.50	1	44.1	96.15	14 31	18.70	2	51.6	97.98	10 37	18.70	2	58.5	99.64	7 57	18.62	2	7.5	1.81	3 20	18.67	3	14.8	3.57	13 03
17.52	3	44.1	96.16	3 59	18.43	3	51.7	98.01	6 31	17.32	3	58.9	99.71	4 51	17.74	3	7.7	1.85	5 50	16.54	8	14.8	3.58	14 21
18.50	3	44.2	96.18	5 30	18.08	3	51.9	98.04	1 10	18.18	3	59.1	99.77	4 21	18.76	2	7.7	1.85	11 31	17.02	4	14.8	3.58	6 35
18.11	3	44.3	96.19	6 14	17.98	3	52.0	98.07	2 51	18.71	2	59.3	99.81	1 07	18.50	2	7.8	1.88	4 39	18.58	3	15.1	3.66	14 03
17.88	3	44.3	96.20	2 38	16.81	3	52.2	98.12	4 19	18.42	2	59.3	99.82	8 01	18.67	2	7.9	1.91	11 40	17.53	3	15.1	3.66	13 23
17.37	3	44.3	96.21	4 13	11.46	12	52.2	98.13	9 28	18.75	3	59.4	99.85	7 20	18.74	2	8.0	1.92	4 01	16.24	9	15.2	3.67	3 10
17.96	3	44.3	96.21	1 37	18.72	3	52.4	98.18	11 41	18.73	3	59.4	99.86	9 45	15.51	10	8.1	1.96	10 57	18.72	3	15.3	3.69	12 23
16.64	5	44.4	96.23	6 08	16.46	8	52.5	98.19	14 07	16.83	5	59.7	99.93	9 57	19.03	2	8.2	1.98	4 54	17.98	3	15.4	3.73	12 44
18.08	1	44.5	96.24	0 33	16.60	8	52.4	98.19	6 34	17.66	3	60.0	99.99	3 43	18.83	1	8.5	2.06	1 15	18.91	2	15.5	3.74	9 17
17.75	3	44.5	96.24	4 25	16.53	6	52.4	98.19	1 02	18.12	3	60.2	0.06	1 10	16.70	6	8.6	2.07	3 48	16.92	3	15.5	3.76	10 34
16.66	7	44.5	96.24	11 52	17.98	3	52.5	98.20	0 55	18.74	3	60.5	0.13	11 12	17.60	3	9.0	2.18	2 31	18.87	2	15.8	3.83	8 51
18.39	3	44.7	96.29	9 18	17.05	1	52.5	98.21	9 35	18.84	2	60.6	0.14	4 04	18.82	2	9.1	2.19	10 59	18.01	2	16.0	3.87	8 49
16.80	6	44.7	96.29	7 01	15.37	10	52.5	98.21	6 43	18.26	2	60.8	0.19	1 18	13.71	11	9.2	2.22	13 24	16.90	3	16.0	3.87	13 59
13.00	14	44.8	96.32	0 05	18.23	3	52.6	98.23	14 14	16.58	8	60.8	0.21	9 26	18.65	3	9.2	2.23	11 25	18.50	2	16.1	3.91	8 01
18.46	3	44.8	96.32	12 01	18.46	2	52.7	98.24	14 39	17.52	3	60.9	0.22	11 22	17.94	3	9.3	2.26	2 46	15.55	9	16.3	3.94	13 12
17.71	3	44.9	96.35	1 39	18.71	2	52.8	98.27	8 47	17.81	3	61.1	0.27	8 59	16.61	5	9.4	2.27	14 15	18.83	1	16.5	3.98	10 58
18.10	3	45.0	96.38	10 00	18.67	2	52.8	98.27	3 24	18.87	2	61.1	0.27	4 57	18.50	2	9.4	2.28	12 55	17.79	3	16.6	4.00	12 23
18.45	3	45.4	96.47	8 31	18.80	2	53.0	98.30	4 30	18.92	1	61.2	0.31	4 42	16.83	7	9.4	2.28	4 53	13.68	12	16.8	4.05	14 07
18.55	3	46.0	96.62	11 02	16.78	5	53.0	98.30	3 41	19.00	1	61.5	0.36	5 15	18.58	2	9.6	2.33	3 03	18.13	3	16.9	4.08	12 57
17.68	3	46.6	96.76	3 49	17.84	3	53.1	98.33	9 21	18.73	2	61.5	0.37	1 03	16.84	6	9.8	2.37	4 18	17.41	3	17.2	4.14	12 21
17.66	3	46.8	96.80	1 39	17.54	3	53.2	98.36	1 14	18.35	3	61.9	0.46	12 37	14.09	10	9.9	2.39	14 43	19.00	1	17.2	4.15	4 01
17.75	3	46.8	96.80	1 21	18.64	3	53.3	98.38	8 55	18.53	3	61.9	0.46	10 31	18.41	3	9.9	2.39	15 00	18.33	3	17.4	4.21	12 33
18.11	3	47.0	96.86	5 34	18.80	2	53.5	98.42	5 16	18.31	3	62.1	0.50	13 08	18.68	3	9.9	2.40	10 21	18.54	2	17.6	4.24	10 12
18.26	2	47.3	96.93	11 17	17.25	3	53.6	98.45	14 51	18.91	2	62.3	0.55	5 26	16.92	7	10.0	2.43	5 31	14.61	10	17.8	4.29	13 46
18.59	3	47.4	96.94	9 56	18.06	2	53.6	98.46	0 15	18.64	2	63.1	0.74	13 17	18.86	2	10.0	2.43	6 30	17.36	2	17.8	4.30	4 46
16.05	10	47.4	96.96	6 59	16.59	7	53.7	98.47	13 01	16.75	8	63.1	0.76	1 14	18.74	2	10.1	2.45	2 19	18.78	2	17.9	4.32	5 04
17.28	3	47.7	97.03	4 11	15.10	10	53.7	98.48	1 55	17.40	3	63.1	0.76	8 21	17.94	3	10.1	2.45	10 05	16.12	9	17.9	4.32	7 37
18.82	2	48.0	97.10	8 43	16.63	9	53.8	98.49	11 21	18.36	3	63.4	0.82	12 21	18.80	3	10.2	2.46	12 28	14.46	10	18.0	4.35	13 45
16.56	7	48.0	97.10	14 44	15.14	12	54.0	98.55	10 04	18.74	2	63.4	0.83	8 13	19.09	1	10.4	2.51	7 49	16.05	6	18.0	4.35	14 46
18.53	3	48.1	97.13	14 09	18.53	3	54.1	98.57	0 18	18.74	2	63.5	0.86	6 40	16.39	5	10.8	2.61	13 13	18.57	2	18.0	4.36	8 14
18.04	2	48.1	97.13	14 34	14.02	12	54.2	98.61	1 46	18.70	3	63.8	0.93	9 13	18.83	3	10.9	2.63	11 09	17.09	3	18.1	4.38	13 13
17.43	3	48.2	97.14	5 13	17.56	3	54.3	98.63	8 20	17.63	3	64.1	1.00	14 40	16.66	7	11.2	2.69	13 39	18.00	3	18.2	4.39	14 49
18.46	3	48.2	97.15	11 12	18.73	2	54.4	98.65	4 14	18.83	3	64.3	1.04	9 09	19.09	1	11.2	2.71	4 50	16.88	6	18.2	4.41	2 34
18.19	3	48.4	97.19	0 58	18.67	2	54.7	98.72	0 45	17.38	3	64.3	1.05	12 49	17.61	3	11.4	2.76	12 27	15.65	9	18.5	4.48	1 40
18.21	3	48.4	97.21	11 32	16.87	5	54.7	98.72	2 47	16.11	8	64.3	1.05	11 24	14.18	13	11.4	2.76	7 43	18.15	2	18.6	4.49	6 54
14.90	11	48.5	97.22	8 07	17.36	3	54.9	98.78	3 51	18.34	3	64.4	1.07	11 56	18.86	2	11.6	2.81	7 02	16.76	4	19.2	4.64	11 49
15.91	10	48.5	97.23	7 15	17.08	3	55.2	98.86	2 09	18.47	3	64.5	1.09	2 46	13.66	12	11.7	2.83	13 43	17.84	3	19.2	4.64	13 07
17.98	3	48.6	97.24	14 21	16.95	3	55.4	98.89	0 39	18.34	3	64.6	1.11	11 30	16.53	7	12.0	2.90	0 59	18.35	3	19.3	4.66	13 53
18.61	3	48.7	97.28	10 42	18.26	2	55.4	98.90	9 50	17.51	3	64.7	1.13	4 31	18.34	3	12.0	2.90	11 40	16.69	8	19.3	4.67	12 09
16.64	5	48.8	97.29	0 46	16.64	6	55.6	98.95	6 06	18.01	1	64.9	1.18	4 24	17.14	5	12.0	2.91	9 13	18.26	2	19.9	4.79	6 29
15.52	9	49.0	97.34	4 34	17.92	3	55.7	98.96	0 33	18.75	3	65.0	1.20	6 32	15.30	9	12.2	2.95	13 10	18.92	2	20.2	4.88	8 26
13.97	12	49.2	97.40	6 51	18.10	3	55.7	98.96	0 11	16.64	6	65.2	1.25	1 19	18.68	2	12.4	3.01	1 46	17.98	3	20.3	4.89	12 43
18.74	3	49.5	97.47	4 26	16.65	6	55.9	99.00	8 07	18.54	2	65.3	1.27	13 04	18.72	2	12.6	3.04	3 10	18.74	2	20.3	4.89	2 17
18.06	3	49.6	97.49	10 10	16.48	9	56.3	99.10	14 05	18.04	3	65.5	1.33	10 24	15.17	10	12.6	3.04	8 26	17.89	2	20.3	4.90	5 47
17.70	3	49.8	97.55	4 37	17.44	3	56.3	99.11	12 26	16.57	9	65.6	1.34	0 06	15.49	9	12.6	3.05	9 43	18.16	2	20.4	4.92	4 25
18.22	3	49.9	97.56	0 06	18.18	2	56.5	99.16	9 07	18.79	2	65.8	1.41	1 58	17.74	3	12.7	3.08	2 52	16.94	3	20.4	4.93	7 38
16.74	6	49.9	97.56	11 41	18.76	3	56.7	99.19	10 32	17.66	3	65.8	1.41	6 50	16.64	8	12.7	3.08	3 46	16.78	4	20.5	4.96	12 22
18.69	3	49.9	97.57	7 15	17.50	3	56.8	99.22	2 22	16.41	9	65.9	1.43	13 18	15.44	9	12.8	3.10	12 42	16.56	7	20.9	5.04	12 03
17.39	3	50.0	97.58	6 57	18.07	3	57.1	99.29	6 19	18.19	3	66.0	1.45	10 21	18.17	3	13.0	3.15	7 46	17.34	2	20.9	5.04	12 01
16.83	5	50.1	97.61	3 59	16.93	6	57.2	99.33	7 30	15.37	9	66.0	1.45	2 28	16.49	9	13.2	3.19	14 31	16.20	8	20.9	5.04	11 08
16.85	5	50.1	97.61	0 20	18.84	2	57.3	99.34	6 51	14.66	11	66.2	1.49	5 40	18.44	2	13.2	3.20	13 26	13.70	10	20.9	5.05	14 45
16.79	5	50.4	97.67	0 32	18.23	3	57.4	99.37	6 43	18.51	3	66.2	1.50	11 56	18.88	2	13.4	3.24	4 57	18.30	2	20.9	5.06	9 08
18.03	3	50.8	97.77	7 48	15.89	10	57.4	99.37	0 12	17.40	3	66.3	1.52	14 47	16.57	9	13.5	3.26	14 28	15.94	9	21.1	5.09	6 51
18.42	3	50.9	97.79	8 09	17.75	3	57.4	99.37	5 55	16.82	8	66.3	1.52	10 40	18.16	3	13.8	3.32	13 47	18.64	2	21.1	5.09	10 59

25 prec. + 85^s.8, − 0′ 33″

301—360				361—420				421—480				481—538			
Mag.	α 15^m	x	$y+10'$	Mag.	α 15^m	x	$y+10'$	Mag.	α 15^m	x	$y+10'$	Mag.	α 15^m	x	$y+10'$
	s	'	' "		s	'	' "		s	'	' "		s	'	' "
17.38 3	21.2	5.12	13 09	18.70 2	26.7	6.44	2 35	13.94 11	33.2	8.02	4 19	18.42 3	39.2	9.47	1 20
18.01 3	21.2	5.12	7 20	16.23 8	26.7	6.46	4 32	11.20 12	33.3	8.04	7 11	16.71 6	39.3	9.49	11 26
18.74 2	21.2	5.13	9 11	18.92 1	26.8	6.47	3 37	18.52 3	33.3	8.04	11 35	18.58 3	39.4	9.53	11 53
13.53 11	21.3	5.16	11 53	18.29 3	26.8	6.48	14 16	16.68 8	33.4	8.08	2 29	18.83 1	39.4	9.53	9 23
18.76 2	21.7	5.26	3 30	17.98 2	26.9	6.50	11 49	17.31 3	33.6	8.13	9 06	18.38 2	39.5	9.56	9 37
14.98 10	21.7	5.26	10 47	17.39 3	27.2	6.57	12 48	15.27 10	33.6	8.13	13 59	17.42 3	39.7	9.59	14 01
16.60 8	21.8	5.28	14 19	16.99 3	27.2	6.57	12 10	18.11 3	33.6	8.13	13 38	18.16 3	39.7	9.59	3 20
18.82 2	22.0	5.32	12 59	15.63 8	27.5	6.64	4 27	14.36 12	33.7	8.16	5 37	17.27 3	39.8	9.63	9 27
14.56 11	22.0	5.32	12 12	17.60 3	27.5	6.66	10 33	16.94 3	33.8	8.17	5 12	14.94 12	40.0	9.66	11 47
16.73 3	22.1	5.35	14 11	18.18 3	27.7	6.71	10 39	16.69 4	33.9	8.20	5 16	15.02 10	40.0	9.67	9 43
17.05d 1	22.1	5.35	5 17	18.58 2	27.7	6.71	8 01	17.63 3	33.9	8.20	13 40	18.83 1	40.1	9.69	5 53
16.77 4	22.1	5.35	9 39	18.17 3	27.9	6.74	3 14	18.76 3	34.2	8.26	10 23	18.07 3	40.4	9.75	0 48
16.91 7	22.3	5.39	10 24	17.60 3	28.1	6.78	13 04	16.80 7	34.3	8.29	7 51	18.75 1	40.5	9.79	8 46
17.75 3	22.5	5.43	4 16	16.40d 1	28.2	6.80	6 02	11.47 13	34.4	8.30	8 07	17.95 3	40.8	9.84	14 59
18.29 3	22.7	5.48	9 54	18.40 2	28.3	6.82	9 02	18.64 3	34.4	8.31	13 23	18.00 3	40.8	9.85	8 42
17.47 3	22.8	5.50	6 20	18.78 2	28.4	6.84	1 40	18.46 3	34.7	8.38	3 49	11.79 13	40.8	9.86	4 59
18.38 3	22.8	5.51	9 33	17.17 3	28.4	6.84	14 56	18.69 3	35.2	8.49	8 19	15.83 10	40.9	9.87	1 03
15.41 9	23.0	5.54	11 04	17.93 3	28.5	6.88	12 04	18.09 3	35.3	8.53	10 56	17.95 3	41.1	9.93	9 45
17.46 3	23.0	5.55	6 49	16.41 9	28.6	6.89	12 22	17.27 3	35.4	8.55	4 01	18.06 3	41.2	9.95	5 36
18.83 1	23.1	5.57	12 14	18.46 2	28.6	6.89	9 33	16.64 8	35.4	8.56	6 55	15.58 10	41.2	9.96	3 54
16.93 3	23.2	5.59	8 46	18.68 3	28.6	6.91	12 59	16.80 3	35.6	8.59	10 55	17.61 3	41.3	9.98	3 45
18.15 3	23.2	5.60	11 40	18.48 3	28.8	6.94	14 43	16.60 8	35.6	8.61	1 17	16.61 7	41.4	10.01	9 50
14.12 11	23.2	5.60	10 56	18.04 2	28.8	6.94	7 00	18.92 1	35.6	8.61	5 40	17.35 3	41.5	10.03	6 28
17.35 3	23.2	5.60	12 51	18.31 3	28.8	6.95	12 33	16.55 8	35.7	8.62	8 08	18.01 3	41.6	10.04	9 47
16.75 6	23.4	5.65	12 02	15.08 9	29.2	7.06	14 59	17.20 3	35.7	8.63	6 04	17.09 3	41.8	10.10	5 46
17.79 3	23.4	5.66	3 14	17.13 3	29.3	7.08	11 07	18.49 3	35.8	8.66	14 48	18.55 2	41.8	10.10	4 56
16.45 8	23.8	5.75	12 51	18.70 2	29.6	7.14	8 34	16.76 6	35.9	8.68	13 06	17.10 3	41.9	10.12	8 36
16.53 3	23.9	5.77	13 27	17.14 3	29.9	7.23	14 15	18.92 1	36.1	8.72	7 06	18.87 2	42.0	10.16	7 37
18.24 1	23.9	5.77	1 42	18.15 3	30.0	7.24	5 11	18.66 2	36.2	8.75	5 53	18.83 1	42.0	10.16	1 40
17.87 3	23.9	5.77	5 06	18.84 2	30.0	7.26	6 50	18.02 2	36.2	8.75	10 57	17.88 3	42.4	10.24	12 56
15.99 10	23.9	5.78	9 59	18.88 2	30.2	7.30	4 43	16.62 8	36.2	8.75	12 08	16.72 3	42.6	10.30	2 55
18.12 2	23.9	5.78	1 44	17.32 3	30.2	7.30	11 14	18.83 1	36.2	8.76	11 01	18.34 3	42.6	10.31	12 20
18.83 1	24.1	5.82	11 31	15.38 9	30.3	7.33	11 36	17.49 3	36.4	8.79	5 33	15.50 10	42.7	10.33	13 21
15.83 9	24.2	5.84	11 22	17.90 3	30.5	7.37	6 44	18.60 3	36.4	8.80	13 54	18.75 1	42.7	10.33	10 19
18.19 3	24.2	5.84	2 02	16.81 4	30.6	7.41	7 26	16.97 3	36.4	8.81	12 33	18.50 3	42.8	10.34	9 24
18.09 3	24.2	5.85	5 14	16.04 9	30.7	7.42	3 33	18.98 2	36.4	8.81	1 48	16.29 9	42.8	10.35	1 48
18.27 3	24.2	5.86	13 57	18.75 1	30.8	7.45	1 09	17.27 3	36.8	8.91	5 23	15.85 10	42.9	10.36	1 42
16.77 8	24.3	5.87	7 25	18.60 3	30.9	7.47	7 23	16.95 3	36.9	8.92	11 03	18.17 3	43.1	10.41	14 01
17.13 3	24.4	5.91	10 06	16.75 5	31.1	7.50	9 49	16.89 3	36.9	8.93	14 48	17.46 3	43.3	10.45	13 00
18.17 3	24.5	5.92	13 21	17.69 3	31.1	7.50	11 17	13.74 12	37.0	8.94	5 37	16.66 3	43.4	10.47	1 05
18.40 2	24.5	5.93	14 12	12.75 15	31.2	7.52	5 51	16.71 3	37.1	8.96	7 14	15.79 10	43.9	10.59	6 45
17.68 3	24.5	5.93	5 32	18.68 2	31.2	7.53	8 24	15.18 10	37.2	8.98	1 40	16.60 4	44.1	10.64	8 31
17.46 3	24.6	5.95	13 43	18.89 3	31.3	7.54	9 28	16.53 8	37.2	8.99	7 46	17.74 3	44.1	10.65	7 57
17.96 3	24.6	5.96	4 51	17.94 3	31.4	7.57	3 19	18.78 2	37.3	9.01	13 16	18.34 3	44.3	10.69	7 31
18.76 2	24.8	5.99	13 56	18.46 3	31.4	7.57	13 58	16.68 7	37.4	9.03	6 35	16.61 8	44.3	10.69	3 27
16.75 7	24.8	6.00	4 02	18.42 2	31.4	7.58	11 09	14.36 12	37.5	9.06	10 23	18.66 1	44.3	10.69	14 23
18.92 2	25.1	6.07	6 00	17.98 3	31.4	7.58	7 20	14.87 10	37.6	9.07	11 33	16.72 3	44.4	10.73	11 31
15.26 10	25.2	6.08	12 07	14.98 11	31.7	7.64	5 25	16.40 9	37.6	9.07	13 41	17.50 3	44.5	10.74	4 50
18.35 2	25.5	6.15	7 51	18.68 3	31.7	7.64	14 04	18.13 3	37.6	9.08	2 58	17.76 3	44.5	10.75	7 12
15.48 9	25.6	6.18	6 56	17.92 3	31.7	7.64	3 38	16.65 3	37.7	9.11	1 37	18.60 2	44.7	10.79	11 22
16.49 6	25.8	6.22	13 28	16.76 8	32.1	7.74	7 35	16.72 7	37.7	9.11	9 41	18.78 3	44.7	10.79	3 39
14.91 10	25.9	6.25	8 13	18.83 1	32.1	7.75	0 22	16.91 3	37.8	9.13	11 04	17.12 3	44.7	10.81	2 18
15.55 9	25.9	6.25	5 44	15.26 8	32.4	7.82	9 39	17.85 3	37.9	9.15	13 21	18.67 3	44.8	10.83	8 55
16.36 9	26.0	6.27	5 50	18.30 3	32.5	7.84	12 24	16.30 9	38.0	9.17	9 07	16.78 3	45.0	10.88	4 43
18.71 3	26.1	6.31	13 11	16.70 3	32.5	7.86	0 00	18.30 3	38.1	9.20	4 21	18.75 1	45.1	10.89	11 50
14.77 11	26.2	6.32	8 33	18.92 1	32.8	7.92	3 53	16.72 3	38.3	9.25	13 42	18.57 2	45.1	10.90	12 09
16.00 9	26.3	6.35	13 38	18.80 2	32.9	7.95	8 31	18.34 3	38.5	9.31	3 30	17.05 3	45.3	10.96	10 27
18.60 2	26.3	6.38	4 14	16.76 8	32.9	7.95	8 06	16.19 7	38.9	9.41	3 04	18.07 3	45.5	10.99	10 56
16.26 9	26.5	6.39	7 14	15.34 10	32.9	7.96	7 29	17.44 3	38.9	9.41	7 28				
18.40 2	26.5	6.39	5 27	17.32 3	33.0	7.98	12 00	18.65 3	39.1	9.45	8 29				

1s—60s				
Mag.		α 14^m	x	$\frac{y+70'}{y+10'}$
		s	′	′
16.78	2	28	92.3	5.2
18.10	2	29	92.5	3.6
14.46	10	29	92.6	7.2
18.33	2	30	92.6	7.8
17.07	2	30	92.8	8.0
18.12	2	30	92.8	8.2
15.58	7	30	92.8	9.5
10.41	9	31	92.9	4.4
17.47	2	31	93.0	6.6
17.31	2	31	93.1	3.3
17.05	2	31	93.1	9.0
18.35	2	32	93.2	5.6
17.96	2	32	93.2	10.0
14.95	5	32	93.3	1.6
18.50	2	32	93.4	1.4
18.50	2	33	93.4	4.0
16.47	6	33	93.4	7.0
18.36	2	32	93.4	8.5
18.11	2	33	93.4	9.8
15.13	8	33	93.4	10.4
14.92	7	33	93.5	6.8
18.22	2	33	93.5	9.6
15.09	8	33	93.6	4.2
17.21	2	34	93.6	10.5
16.59	5	34	93.7	7.8
18.37	2	34	93.8	9.6
18.51	2	35	94.0	5.6
15.00	8	35	94.0	8.4
17.76	2	35	94.0	9.8
17.53	2	35	94.0	12.0
17.91	2	36	94.1	10.2
16.47	5	36	94.1	10.8
18.53	2	36	94.2	0.2
15.27	7	36	94.2	2.6
17.42	2	36	94.2	6.6
15.96	7	37	94.4	59.0
17.13	3	37	94.4	6.4
17.57	2	37	94.4	9.9
16.37	6	37	94.5	58.8
18.64	2	37	94.5	5.6
18.38	2	38	94.6	0.6
17.04	2	38	94.6	2.8
16.14	7	38	94.6	3.8
16.58	3	37	94.6	4.6
15.61	8	37	94.6	5.6
16.38	7	37	94.6	12.4
16.63	2	38	94.7	1.6
18.34	2	38	94.7	6.0
16.14	7	38	94.8	0.4
18.64	2	39	94.8	4.2
16.90	2	39	94.9	59.4
17.57	2	39	94.9	4.1
17.04	3	39	95.0	12.8
17.26	2	40	95.1	1.9
15.92	7	40	95.1	2.8
17.72	2	40	95.1	4.6
16.35	6	40	95.1	5.4
16.52	6	40	95.2	2.8
17.28	2	40	95.2	2.9
14.32	9	40	95.2	10.8

61s—120s				
Mag.		α 14^m	x	$\frac{y+70'}{y+10'}$
		s	′	′
14.86	10	41	95.3	5.4
18.60	2	41	95.3	8.0
16.47	7	41	95.3	11.9
17.82	2	41	95.4	59.4
18.36	2	41	95.4	3.0
18.30	2	41	95.4	4.6
16.99	4	41	95.4	7.6
15.82	7	41	95.4	11.8
16.37	3	41	95.4	13.4
18.11	2	42	95.6	58.5
18.29	2	42	95.6	1.4
18.38	2	42	95.6	10.4
17.39	2	42	95.6	12.1
17.69	2	42	95.7	58.5
18.51	2	42	95.7	11.2
16.79	2	43	95.8	5.1
16.51	7	43	95.8	5.4
18.76	2	43	95.8	5.6
18.67	2	43	95.8	8.4
17.85	2	43	95.8	9.4
17.15	2	43	95.8	13.2
18.22	2	43	95.9	1.9
17.95	2	43	95.9	2.4
18.53	2	43	95.9	7.8
15.89	8	43	95.9	8.0
18.00	2	43	96.0	59.6
18.41	2	44	96.0	9.1
18.48	2	44	96.2	57.3
18.55	2	46	96.5	57.4
18.53	2	46	96.6	58.9
18.32	2	46	96.6	59.1
17.70	2	47	96.9	57.5
18.60	2	47	96.9	57.8
15.29	8	47	96.9	58.8
17.59	2	47	96.9	59.5
16.54	4	48	97.0	57.4
16.67	7	48	97.1	59.0
14.90	10	48	97.2	59.7
16.40	7	52	98.1	58.4
17.34	2	53	98.2	57.4
16.66	3	52	98.2	58.4
18.61	2	53	98.3	59.8
18.37	2	53	98.3	15.7
16.57	5	54	98.6	59.6
16.58	7	54	98.6	15.1
17.16	2	55	98.7	15.4
18.82	2	55	98.8	58.7
16.03	7	55	98.9	56.3
17.49	2	56	99.1	56.6
14.82	10	57	99.2	56.0
18.36	2	57	99.2	15.8
17.28	2	58	99.4	59.2
17.69	2	58	99.6	58.6
16.61	5	58	99.6	59.4
16.52	7	58	99.6	16.2
18.60	2	59	99.8	56.4
17.05	2	59	99.8	59.9
16.60	7	60	0.0	59.2
16.76	3	60	0.0	15.4
18.35	2	60	0.0	15.5

121s—180s				
Mag.		α 15^m	x	$\frac{y+70'}{y+10'}$
		s	′	′
18.60	2	0	0.1	55.8
16.56	7	0	0.1	57.8
17.59	2	0	0.1	58.6
17.34	2	1	0.2	57.9
17.46	2	1	0.3	56.9
16.52	7	1	0.3	57.0
16.57	2	1	0.3	16.7
16.93	2	2	0.6	55.0
18.72	2	2	0.6	57.6
17.33	2	2	0.6	58.2
13.87	12	3	0.7	57.3
16.89	2	5	1.2	16.8
18.28	2	5	1.3	55.6
18.47	2	5	1.3	15.0
16.50	6	6	1.4	54.7
18.32	2	6	1.4	55.6
18.50	2	6	1.4	56.4
17.63	2	6	1.4	59.8
15.57	8	6	1.4	16.4
17.20	2	6	1.4	16.7
9.97	8	6	1.5	58.1
18.42	2	7	1.6	58.8
16.61	7	7	1.6	15.2
16.69	4	7	1.7	16.8
18.43	2	7	1.7	17.2
18.65	2	8	1.8	57.6
18.28	2	8	1.9	55.4
18.50	2	8	2.0	55.6
18.55	2	8	2.0	15.8
17.23	2	9	2.1	57.8
18.44	2	9	2.1	58.1
18.22	2	9	2.1	58.4
18.67	2	9	2.2	56.6
17.61	2	9	2.2	15.7
16.68	2	9	2.2	17.1
17.65	2	10	2.3	58.6
17.40	2	10	2.5	16.4
17.70	2	10	2.5	16.6
17.83	2	11	2.6	59.0
16.54	7	11	2.6	16.6
18.07	2	11	2.7	58.6
15.18	7	12	3.0	55.4
17.73	2	12	3.0	57.6
18.57	2	12	3.0	15.6
18.50	2	13	3.1	57.4
18.48	2	13	3.2	55.4
13.80	12	13	3.2	56.3
16.55	7	13	3.2	15.1
17.32	2	14	3.4	57.2
16.93	2	14	3.4	16.9
18.53	2	15	3.7	56.4
18.70	2	15	3.7	57.2
16.57	7	16	3.8	56.5
15.77	8	16	3.8	16.2
17.54	2	17	4.0	16.1
15.81	7	17	4.0	16.8
18.45	2	17	4.1	56.4
18.74	2	17	4.2	57.2
15.13	8	17	4.2	57.4
17.53	2	18	4.3	54.6

181s—240s				
Mag.		α 15^m	x	$\frac{y+70'}{y+10'}$
		s	′	′
17.56	2	18	4.4	57.5
15.68	7	18	4.4	57.6
16.56	6	19	4.5	15.8
18.52	2	19	4.6	56.5
17.30	2	19	4.6	59.6
15.50	8	19	4.6	16.0
18.74	2	19	4.7	57.4
17.94	2	20	4.8	55.2
18.44	2	20	4.8	59.0
16.54	6	20	4.8	15.7
18.67	2	20	4.9	58.0
18.67	2	20	4.9	58.4
17.90	2	20	4.9	16.0
17.45	2	22	5.2	57.4
18.46	2	22	5.3	56.9
17.98	2	22	5.3	58.2
17.51	2	22	5.3	15.6
11.27	8	22	5.4	15.4
16.58	6	23	5.5	16.2
18.43	2	23	5.5	17.1
17.72	2	23	5.6	54.8
16.48	5	23	5.6	55.3
16.61	2	23	5.6	56.8
18.71	2	23	5.6	58.2
16.86	2	23	5.6	58.6
18.28	2	23	5.6	17.0
13.72	12	24	5.8	55.0
18.64	2	24	5.8	57.2
16.95	2	24	5.8	15.6
17.30	2	25	6.0	56.8
16.47	5	26	6.2	16.7
16.15	5	26	6.4	55.7
18.26	2	27	6.4	15.4
18.29	2	27	6.4	16.4
18.41	2	27	6.5	15.2
16.30	7	27	6.5	16.2
16.52	5	27	6.6	55.4
17.53	2	27	6.6	57.8
16.50	3	28	6.8	55.3
18.60	2	28	6.8	56.0
16.60	3	29	7.0	55.5
16.52	5	29	7.0	16.2
16.51	2	30	7.2	16.4
18.59	2	30	7.3	55.8
17.21	2	31	7.4	57.4
14.59	8	31	7.5	59.6
18.22	2	31	7.6	16.3
18.82	2	32	7.7	58.5
18.44	2	32	7.8	55.5
18.36	2	32	7.8	56.9
15.77	8	33	7.8	15.8
18.53	2	33	8.0	57.1
17.12	2	34	8.1	56.9
18.18	2	34	8.1	57.5
17.29	2	34	8.2	58.6
17.79	2	34	8.2	59.4
16.67	3	34	8.2	59.5
15.83	7	35	8.4	15.7
18.10	2	35	8.5	56.4
18.28	2	37	8.9	56.3

241s—300s				
Mag.		α 15^m	x	$\frac{y+70'}{y+10'}$
		s	′	′
17.15	2	37	9.0	56.6
17.68	2	38	9.0	15.3
17.98	2	38	9.1	15.6
18.65	2	39	9.3	59.4
18.42	2	39	9.4	15.3
17.82	2	39	9.5	15.5
18.32	2	40	9.6	15.2
18.60	2	41	10.0	57.6
18.06	2	43	10.3	58.0
17.44	2	43	10.5	57.4
17.75	2	46	11.0	57.8
16.42	5	45	11.0	58.6
18.48	2	46	11.0	59.4
18.76	2	46	11.0	2.2
18.62	2	46	11.1	59.0
16.29	7	46	11.1	8.4
17.10	2	46	11.1	13.3
16.73	2	47	11.2	6.9
17.00	2	47	11.2	7.8
18.65	2	46	11.2	9.1
17.47	2	46	11.2	9.2
18.21	2	46	11.2	12.6
17.64	2	47	11.3	2.0
17.42	2	47	11.4	58.4
17.46	2	47	11.4	7.6
16.58	6	47	11.4	10.0
13.08	10	48	11.5	59.4
18.67	2	48	11.5	3.4
17.05	2	48	11.5	7.7
16.55	6	48	11.6	59.3
18.30	2	48	11.6	5.0
17.87	2	48	11.6	5.6
18.34	2	48	11.6	5.8
14.03	10	48	11.6	7.5
17.34	2	48	11.6	11.7
18.50	2	48	11.6	12.1
12.72	13	48	11.7	1.6
18.57	2	48	11.7	11.1
18.22	2	49	11.9	6.9
17.30	2	49	11.9	10.0
18.53	2	50	12.0	59.0
16.59	3	50	12.0	0.9
18.50	2	50	12.0	3.3
17.29	2	50	12.0	6.8
18.05	2	50	12.0	9.0
17.06	2	50	12.1	0.8
18.07	2	51	12.2	1.2
16.76	2	50	12.2	2.0
18.46	2	50	12.2	5.0
15.80	8	51	12.2	6.2
15.08	9	51	12.2	9.2
15.41	8	51	12.2	11.9
17.61	2	51	12.2	13.2
16.66	2	51	12.3	59.3
18.25	2	51	12.3	3.4
18.65	2	51	12.4	5.7
18.01	2	51	12.4	7.4
16.27	6	52	12.5	9.4
17.85	2	52	12.6	59.0
18.67	2	52	12.6	6.1

25 prec. + 85ˢ.8, — 0′ 33″

6^{h}

Area 74. Supplementary Stars

+ 15°

301s—320s				321s—340s				341s—360s			
Mag.	α 15^{m}	x	$y+10'$	Mag.	α 15^{m}	x	$y+10'$	Mag.	α 15^{m}	x	$y+10'$
	s	′	′		s	′	′		s	′	′
18.26 2	52	12.6	12.2	16.64 2	55	13.3	8.2	17.28 2	57	13.8	8.0
18.67 2	53	12.7	2.4	16.41 7	55	13.3	8.6	18.26 2	57	13.8	9.9
16.44 5	53	12.8	1.6	14.93 9	55	13.3	9.4	18.35 2	58	13.9	8.2
18.28 2	53	12.8	9.8	18.35 2	55	13.3	10.2	18.29 2	58	14.0	1.4
16.45 7	53	12.8	11.2	15.56 8	56	13.4	0.3	17.38 2	58	14.0	2.8
18.28 2	53	12.8	11.6	18.67 2	56	13.4	4.6	18.48 2	58	14.0	4.4
18.60 2	53	12.9	1.8	18.29 2	56	13.4	8.9	15.40 8	58	14.0	9.2
18.55 2	53	12.9	2.8	17.19 2	56	13.4	11.3	17.84 2	58	14.1	2.7
18.49 2	53	12.9	8.2	18.57 2	56	13.5	4.5	14.37 8	58	14.1	4.7
12.80 13	54	13.0	4.3	16.95 2	56	13.5	8.4	18.55 2	59	14.2	6.6
15.73 8	54	13.0	4.4	18.49 2	56	13.6	0.6	17.14 2	59	14.2	6.8
16.41 7	54	13.0	12.0	18.28 2	56	13.6	4.0	18.31 2	59	14.2	9.1
18.16 2	54	13.0	12.2	16.97 2	56	13.6	6.8	15.77 8	59	14.2	9.4
16.24 7	54	13.1	1.0	18.46 2	56	13.6	7.4	18.39 2	59	14.3	5.2
18.59 2	55	13.2	2.0	18.48 2	56	13.6	10.4	17.28 2	60	14.4	8.4
15.06 8	55	13.2	7.6	16.39 5	56	13.6	10.6	16.71 2	60	14.5	6.0
17.73 2	55	13.2	8.6	16.90 2	57	13.7	2.2	18.22 2	60	14.6	5.6
18.15 2	54	13.2	8.8	16.13 4	57	13.8	3.4	16.53 2	60	14.6	5.8
17.85 2	54	13.2	10.8	17.18 2	57	13.8	4.0	15.54 7	61	14.8	4.4
18.37 2	55	13.3	6.9	18.21 2	57	13.8	6.8	17.87 2	61	14.8	6.3

25 prec. + $85^{\mathrm{s}}.8$, − 0′ 34″

7^{h}

Area 75. Center for 1900: $7^{h}\ 14^{m} + 15°\ 10'$ $(15' \times 15')$

+ 15°

1—30				31—60				61—90				91—120				121—150			
Mag.	α 14^{m}	x	$y+10'$	Mag.	α 14^{m}	x	$y+10'$	Mag.	α 14^{m}	x	$y+10'$	Mag.	α 14^{m}	x	$y+10'$	Mag.	α 14^{m}	x	$y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
16.68 3	25.0	6.05	13 35	17.53 3	27.9	6.75	5 07	16.88 3	32.1	7.76	6 20	18.48 1	37.3	9.00	4 57	15.44 9	41.0	9.90	9 44
18.48 1	25.0	6.05	13 32	17.77 3	28.0	6.77	9 02	15.11 9	32.4	7.83	5 36	12.59 14	37.4	9.03	7 16	16.46 4	41.0	9.91	14 36
13.04 12	25.1	6.06	0 42	17.91 3	28.2	6.80	5 24	17.54 2	32.5	7.84	13 43	17.84 1	37.6	9.07	14 16	17.96 3	41.0	9.91	3 50
17.68 1	25.1	6.07	2 20	16.64 3	28.3	6.82	2 50	14.81 10	32.6	7.87	14 49	17.66 2	37.7	9.11	2 44	18.48 1	41.1	9.92	1 49
17.59 1	25.1	6.07	11 26	17.24 3	28.3	6.83	5 19	13.28 12	32.6	7.88	10 26	17.04 3	37.9	9.14	12 59	14.66 12	41.1	9.92	4 51
18.48 1	25.2	6.08	12 51	16.91 3	28.3	6.83	9 10	16.84 3	32.9	7.96	7 59	18.10 1	37.9	9.16	9 54	17.93 3	41.1	9.93	4 05
16.84 3	25.2	6.09	9 14	14.27 12	28.5	6.87	7 22	17.12 3	33.3	8.05	6 00	16.02 9	38.1	9.21	12 31	15.78 9	41.4	10.00	5 49
16.78 3	25.5	6.14	11 28	16.19 4	28.6	6.90	3 16	17.33 3	33.4	8.08	3 51	16.25 8	38.4	9.27	11 16	18.70 1	41.5	10.03	11 38
17.84 1	25.6	6.17	11 27	12.30 15	28.8	6.96	5 13	17.06 3	33.5	8.10	0 15	17.68 3	38.4	9.27	4 40	16.81 3	41.6	10.06	13 04
16.76 3	25.6	6.18	6 30	17.84 3	29.4	7.11	13 23	18.10 1	33.5	8.10	5 35	18.92 1	38.5	9.30	4 30	19.03 1	41.6	10.06	6 58
17.59 1	26.0	6.27	14 00	18.81 1	29.5	7.12	2 55	17.79 3	33.5	8.11	8 18	18.38 1	39.0	9.42	8 06	15.14 9	41.8	10.10	4 32
18.70 1	26.1	6.31	1 00	18.81 1	29.5	7.13	4 42	17.88 2	33.6	8.12	8 31	15.02 9	39.0	9.42	11 54	16.10 9	41.8	10.10	10 21
14.82 1	26.2	6.32	14 57	17.43 1	29.7	7.17	14 41	14.24 12	33.6	8.12	10 30	14.86 10	39.1	9.45	2 57	18.70 1	42.2	10.21	13 04
18.70 1	26.3	6.34	8 48	16.64 3	29.9	7.23	12 25	14.93 10	33.7	8.16	4 23	17.80 3	39.1	9.45	1 34	16.68 3	42.4	10.25	8 02
16.25 6	26.4	6.37	0 56	16.13 7	30.2	7.31	13 59	18.59 1	33.8	8.17	11 40	17.52 3	39.2	9.48	1 51	16.75 3	42.4	10.26	7 45
16.29 8	26.4	6.37	1 21	16.76 2	30.3	7.33	11 15	16.46 4	34.0	8.22	3 18	17.28 2	39.4	9.52	13 05	18.19 1	42.5	10.27	3 39
14.98 9	26.4	6.37	1 09	16.93 3	30.5	7.37	4 10	17.57 3	34.2	8.27	13 23	17.67 3	39.6	9.57	12 38	19.03 1	42.6	10.30	5 09
17.64 3	26.4	6.38	3 49	17.67 3	30.5	7.38	11 39	16.90 3	34.3	8.29	3 30	15.49 10	39.7	9.60	7 29	18.07 2	42.6	10.31	3 00
17.39 3	26.5	6.40	4 59	18.48 1	30.9	7.46	6 02	15.37 10	34.3	8.29	13 46	17.44 2	39.8	9.62	5 54	16.40 4	43.1	10.41	3 06
18.38 1	26.5	6.40	9 16	17.64 2	31.2	7.53	11 27	17.50 3	34.6	8.34	12 21	17.84 2	39.8	9.62	11 05	17.79 3	43.2	10.43	8 00
18.70 1	26.5	6.41	8 32	17.03 3	31.3	7.55	10 48	17.76 1	34.7	8.38	10 27	18.70 1	40.0	9.66	1 10	17.56 3	43.2	10.43	7 09
17.92 1	26.5	6.41	10 24	12.67 13	31.3	7.55	1 04	17.92 1	35.1	8.48	14 10	17.37 3	40.0	9.67	14 29	17.79 3	43.3	10.44	1 44
18.59 1	26.7	6.45	12 16	17.74 3	31.3	7.56	7 37	18.48 1	35.2	8.49	7 40	18.00 1	40.4	9.74	5 32	16.85 3	43.3	10.45	2 40
15.97 9	26.8	6.47	11 38	16.07 8	31.6	7.63	1 35	13.99 12	35.4	8.56	14 26	17.88 3	40.4	9.75	3 45	17.67 3	43.7	10.54	14 32
18.59 1	26.8	6.47	0 39	18.70 1	31.7	7.64	8 55	18.00 1	35.6	8.60	1 50	19.03 1	40.6	9.81	6 11	11.79 14	44.1	10.66	8 34
18.81 1	27.2	6.58	2 44	17.77 3	31.7	7.65	9 11	18.38 1	35.9	8.67	11 48	16.00 9	40.8	9.84	6 00	18.38 1	44.2	10.68	7 10
17.66 2	27.4	6.63	10 43	16.63 4	31.7	7.66	3 53	18.70 1	36.0	8.70	11 55	17.65 3	40.8	9.84	1 39	17.73 3	44.4	10.72	1 06
15.30 10	27.5	6.64	8 18	16.70 3	31.8	7.67	2 04	15.65 9	36.3	8.77	11 01	18.09 3	40.9	9.87	3 46	16.07 8	44.5	10.76	4 33
17.19 1	27.5	6.66	14 10	15.92 8	31.8	7.67	0 51	18.48 1	36.6	8.85	14 00	18.48 1	40.9	9.88	1 40	16.64 5	44.6	10.77	4 38
16.82 3	27.7	6.70	2 49	17.14 3	32.1	7.75	9 21	13.68 14	37.2	8.98	9 16	17.65 3	40.9	9.88	13 46	17.92 1	44.6	10.77	14 29

25 prec. + $85^{\mathrm{s}}.3$, − 2′ 41″

151—210				
Mag.		α 14^m	x	$y+10'$
		s	′	′ ″
17.43	1	44.9	10.84	14 50
18.10	1	45.0	10.87	4 32
18.81	1	45.0	10.87	0 22
14.56	12	45.0	10.88	7 26
17.08	3	45.0	10.90	8 48
18.81	1	45.3	10.96	10 54
17.86	3	45.5	10.99	14 59
15.58	9	45.5	10.99	9 43
13.87	12	45.6	11.02	5 42
17.39	3	45.9	11.08	1 32
17.76	1	45.9	11.08	12 13
16.91	3	46.0	11.10	11 26
16.81	3	46.0	11.11	12 21
17.68	1	46.1	11.12	14 10
17.63	3	46.5	11.22	1 36
15.53	9	46.8	11.29	3 19
17.91	3	46.8	11.31	9 25
15.69	9	47.0	11.34	1 57
17.95	2	47.0	11.36	5 40
17.22	3	47.3	11.42	7 14
18.92	1	47.3	11.42	1 14
18.81	1	47.4	11.45	10 27
15.32	9	47.5	11.48	9 38
17.33	3	47.8	11.54	2 31
19.14	1	47.8	11.55	4 16
18.10	1	47.8	11.56	8 06
18.59	1	47.8	11.56	14 50
18.81	1	48.0	11.60	12 08
18.48	1	48.5	11.73	0 41
16.96	3	49.0	11.82	4 04
16.67	6	49.2	11.87	2 42
18.19	1	49.3	11.89	9 27
16.40	4	49.3	11.91	7 51
16.73	4	49.4	11.93	4 20
18.92	1	49.5	11.94	8 51
17.36	3	49.5	11.94	2 21
14.33	12	49.5	11.95	10 32
15.98	7	49.5	11.96	5 42
18.06	3	49.7	11.99	4 26
16.47	4	49.7	12.00	11 10
15.99	9	49.8	12.02	7 21
14.91	10	50.3	12.16	4 00
15.95	9	50.4	12.17	12 14
16.94	3	50.7	12.26	0 36
16.90	3	50.8	12.27	6 53
17.44	3	51.2	12.37	13 19
18.01	3	51.5	12.45	3 32
16.28	6	51.6	12.47	9 20
16.52	6	51.7	12.48	2 06
13.98	12	51.7	12.49	3 19
16.40	6	51.9	12.52	1 01
16.03	9	52.1	12.57	3 10
15.86	9	52.1	12.57	3 17
16.42	6	52.2	12.59	5 36
18.70	1	52.2	12.59	14 18
16.72	3	52.4	12.65	11 44
18.81	1	52.4	12.66	7 23
16.73	3	52.5	12.67	9 44
16.08	6	52.6	12.69	0 48
16.88	3	52.6	12.71	10 09

211—270				
Mag.		α 14^m	x	$y+10'$
		s	′	′ ″
17.51	3	52.9	12.77	8 00
17.98	2	53.1	12.83	3 54
18.70	1	53.4	12.89	12 09
17.84	3	53.7	12.98	11 06
19.03	1	53.7	12.98	1 26
19.14	1	54.0	13.04	3 00
15.75	9	54.2	13.09	1 59
18.18	2	54.2	13.09	8 36
17.76	1	54.2	13.11	12 07
18.19	1	54.3	13.13	8 05
18.00	1	54.4	13.16	4 14
16.48	4	54.6	13.21	11 16
16.30	4	54.7	13.22	12 04
19.14	1	54.7	13.22	3 18
17.42	3	55.3	13.35	12 03
15.72	7	55.3	13.35	0 32
17.03	3	55.4	13.37	12 36
18.70	1	55.5	13.39	12 59
16.58	6	55.7	13.44	2 46
17.64	3	55.7	13.45	14 49
16.80	5	56.1	13.55	2 11
15.25	9	56.1	13.56	9 14
18.81	1	56.2	13.58	12 14
18.70	1	56.3	13.61	1 50
16.26	9	56.5	13.65	6 39
9.62w	8	56.9	13.74	5 08
15.93	8	56.9	13.76	6 11
18.81	1	57.4	13.87	11 14
18.29	1	57.4	13.88	13 44
17.88	2	57.9	13.99	2 21
15.61	9	58.0	14.00	7 51
15.16	10	58.1	14.03	12 36
18.81	1	58.2	14.04	11 43
16.88	3	58.3	14.08	13 25
17.92	1	58.4	14.11	13 53
18.81	1	58.5	14.12	3 40
19.14	1	58.6	14.15	5 14
17.90	3	58.8	14.21	10 09
16.75	3	58.9	14.23	6 09
16.71	4	59.1	14.27	3 04
15.30	9	59.1	14.27	4 02
18.00	1	59.2	14.30	10 47
16.42	4	59.2	14.31	6 22
18.29?	1	59.5	14.38	10 48
16.65	4	59.6	14.39	13 21
19.14	1	59.8	14.44	6 59
16.14	8	59.8	14.45	2 16
16.86	3	59.8	14.46	0 12
17.05	3	59.9	14.47	1 13
13.34	11	60.0	14.49	13 33
15.16	9	60.0	14.51	2 04
14.55	12	60.5	14.62	1 33
19.14	1	60.6	14.64	3 37
17.76	3	61.1	14.74	13 01
12.52	15	61.3	14.81	6 12
15.36	10	61.6	14.87	2 08
15.36	9	61.7	14.91	4 20
15.60	9	61.9	14.95	1 54
19.03	1	62.1	14.99	2 52
17.05	3	62.4	15.08	14 59

271—330				
Mag.		α 15^m	x	$y+10'$
		s	′	′ ″
18.59	1	2.6	15.13	14 21
19.25	1	2.7	15.14	5 44
17.82	3	2.7	15.14	1 28
14.80	10	2.8	15.18	12 21
17.89	3	3.0	15.23	3 48
15.06	10	4.0	15.44	8 34
15.85	8	4.1	15.47	0 48
17.12	3	4.3	15.52	11 33
15.56	9	4.4	15.55	6 05
15.93	9	4.5	15.58	9 44
19.14	1	4.6	15.60	6 34
16.92	3	4.6	15.60	2 28
16.22	8	4.9	15.67	11 08
16.35	5	5.3	15.78	3 52
17.54	3	5.5	15.82	9 19
13.00	11	5.7	15.87	9 51
17.20	3	6.2	16.00	7 47
16.36	8	6.2	16.01	8 54
17.25	3	6.4	16.05	3 33
13.60	13	6.5	16.06	8 37
19.03	1	6.5	16.07	6 39
19.14	1	6.5	16.07	3 40
17.62	3	6.9	16.16	7 34
15.62w	7	7.7	16.34	0 45
12.56	13	7.8	16.38	0 47
18.29	1	8.1	16.45	11 59
19.14	1	8.3	16.51	4 06
16.61	6	8.5	16.55	5 33
14.43	10	8.6	16.57	8 13
17.08	3	8.7	16.60	6 44
15.58	10	8.7	16.60	14 10
16.73	3	8.7	16.61	13 30
18.81	1	8.8	16.62	10 25
17.61	2	8.9	16.65	13 07
17.72	2	9.0	16.68	1 07
18.19	1	9.1	16.71	3 25
17.58	3	9.3	16.74	10 45
17.68	3	9.5	16.79	14 16
14.41	12	9.7	16.82	8 48
19.03	1	9.8	16.86	3 41
15.34	10	10.0	16.91	13 24
18.10	1	10.2	16.95	4 45
17.51	1	10.3	16.97	13 26
17.36	3	10.4	17.00	7 41
16.24	6	10.6	17.06	2 18
15.33	9	10.7	17.07	3 35
17.44	3	10.7	17.08	9 56
14.06	12	10.7	17.08	9 28
17.84	3	10.8	17.10	9 47
15.33	10	10.8	17.11	14 24
16.52	4	11.0	17.15	10 06
18.70	1	11.1	17.17	3 16
18.00	1	11.2	17.21	2 21
17.26	3	11.2	17.21	1 27
18.92	1	11.4	17.26	4 08
19.03	1	11.6	17.29	6 29
17.83	3	11.7	17.33	2 53
16.02	9	11.7	17.33	12 33
18.81	1	12.0	17.40	8 15
15.78	9	12.3	17.46	8 40

331—390				
Mag.		α 15^m	x	$y+10'$
		s	′	′ ″
18.48	1	12.4	17.48	3 52
14.04	12	12.4	17.48	2 26
14.62	11	12.4	17.48	12 29
17.66	2	12.5	17.51	13 18
15.07	11	12.6	17.53	3 36
17.17	3	12.9	17.61	1 13
17.03	3	13.1	17.66	9 45
18.81	1	13.2	17.67	0 10
17.84	1	13.3	17.69	13 00
13.45	13	13.3	17.70	2 45
17.84	3	13.5	17.75	8 45
18.48	1	13.8	17.82	9 19
17.84	1	13.9	17.84	8 58
16.14	8	13.9	17.86	5 19
18.48	1	14.1	17.89	14 42
16.36	6	14.1	17.91	4 28
16.54	4	14.2	17.93	9 41
18.38	1	14.3	17.94	7 13
17.84	1	14.4	17.98	2 26
18.81	1	14.5	17.99	11 10
17.00	3	14.7	18.05	5 21
16.25	9	14.8	18.07	4 16
16.18	8	14.9	18.11	6 44
18.38	1	14.9	18.11	13 29
16.66	4	15.1	18.15	11 28
17.73	3	15.1	18.15	0 40
12.73	12	15.3	18.19	13 02
18.92	1	15.3	18.21	1 09
17.57	3	15.4	18.23	2 53
15.91	9	15.5	18.24	7 33
18.38	1	15.6	18.27	0 40
16.02	7	15.6	18.27	2 27
16.30	6	15.8	18.30	8 55
18.81	1	15.8	18.31	0 53
18.19	1	16.0	18.34	11 21
17.10	3	16.1	18.38	11 24
16.29	6	16.1	18.38	12 18
16.19	6	16.3	18.42	12 13
17.06	3	16.4	18.45	4 09
16.14	7	16.6	18.50	9 20
18.38	1	16.8	18.54	15 00
17.54	3	16.8	18.55	14 54
18.81	1	17.2	18.65	3 50
16.77	3	17.3	18.67	13 39
17.68	1	17.3	18.68	12 09
18.92	1	17.6	18.74	8 12
16.52	4	17.8	18.81	7 00
16.50	7	17.9	18.82	8 17
18.81	1	18.0	18.82	3 00
17.74	2	17.9	18.83	4 11
15.57	10	17.9	18.83	5 48
17.26	3	18.0	18.84	11 34
18.92	1	18.4	18.95	3 57
13.65	11	18.6	18.98	4 14
16.47	8	19.0	19.08	8 20
18.38	1	19.0	19.08	6 49
16.42	8	19.1	19.09	5 58
18.70	1	19.2	19.12	11 29
16.93	3	19.4	19.17	1 10
15.97	9	19.4	19.17	2 23

391—432				
Mag.		α 15^m	x	$y+10'$
		s	′	′ ″
14.24	11	19.4	19.17	4 03
15.39	10	19.5	19.21	4 20
18.81	1	19.9	19.30	8 44
18.70	1	19.9	19.31	10 13
15.97	9	20.0	19.32	8 11
17.46	2	20.1	19.36	0 45
13.96	12	20.3	19.40	3 07
16.74	3	20.5	19.44	10 08
16.94	3	20.5	19.46	9 08
18.00	1	20.6	19.48	10 27
16.73	4	20.9	19.55	13 17
16.50	4	21.1	19.61	10 36
17.14	3	21.5	19.69	12 52
17.84	1	21.5	19.69	9 48
18.81	1	21.7	19.73	2 50
15.57	10	21.9	19.78	12 12
15.83	9	21.9	19.78	13 29
18.81	1	22.1	19.83	8 10
16.89	3	22.5	19.93	12 49
18.00	1	22.6	19.95	3 06
16.63	3	22.7	19.98	11 33
15.47	10	22.8	20.00	13 57
13.72	13	23.9	20.27	11 09
14.84	10	24.0	20.30	7 06
17.13	3	24.1	20.32	3 05
18.48	1	24.8	20.49	6 58
18.59	1	24.9	20.51	13 29
15.07	10	24.9	20.51	3 28
17.84	1	25.4	20.62	13 29
13.56	12	25.5	20.64	4 53
18.81	1	25.5	20.65	6 46
16.10	6	25.5	20.66	0 17
17.40	3	25.7	20.69	6 18
18.00	1	25.7	20.69	9 38
17.73	3	25.7	20.71	9 14
16.08	6	26.3	20.84	13 54
18.81	1	26.4	20.88	3 20
17.28	3	26.5	20.89	4 34
18.81	1	26.5	20.91	3 51
15.88	2	26.8	20.97	14 12
14.64	12	26.8	20.98	1 39
18.00	1	26.9	21.00	7 53

25 prec. + $85^s.3$, − 2′ 42″

1s—60s					61s—120s					121s—180s					181s—220s				
Mag.		α 14^m	x	$y+70'$ $y+10'$	Mag.		α 14^m	x	$y+70'$ $y+10'$	Mag.		α 15^m	x	$y+70'$ $y+10'$	Mag.		α 15^m	x	$y+70'$ $y+10'$
		s	′	′			s	′	′			s	′	′			s	′	′
15.37	7	10	2.4	4.4	16.44	3	40	9.6	57.2	17.58	2	12	17.3	56.6	16.70	2	33	22.5	7.4
15.95	7	12	2.8	4.2	16.84	2	41	9.8	54.4	16.70	2	12	17.4	56.6	16.77	2	33	22.5	9.5
16.32	5	12	2.9	4.3	16.23	3	42	10.2	57.0	15.74	7	14	17.9	55.4	14.86	8	33	22.6	2.1
13.99	10	12	2.9	5.2	17.83	2	42	10.2	57.2	14.65	8	15	18.0	55.7	12.51	11	34	22.6	10.2
16.60	2	12	2.9	6.9	16.64	2	42	10.2	58.6	16.69	2	15	18.0	57.4	17.68	2	34	22.6	11.1
14.10	9	12	3.0	1.4	16.66	2	43	10.3	55.4	13.98	10	15	18.1	56.6	16.10	5	34	22.8	6.2
17.10	2	12	3.0	4.4	16.53	3	43	10.4	56.4	17.22	2	15	18.1	57.1	16.63	2	36	23.0	9.4
15.30	8	13	3.1	2.4	17.66	2	44	10.6	57.6	16.49	3	15	18.1	59.4	15.48	8	35	23.0	9.8
16.54	2	14	3.3	8.2	17.79	2	45	10.8	55.4	13.82	11	16	18.2	59.3	16.77	2	35	23.0	11.2
16.50	2	14	3.4	7.4	16.42	2	45	10.9	55.7	16.16	5	16	18.4	57.0	16.43	3	36	23.2	0.6
14.79	8	14	3.5	2.7	16.66	2	46	11.1	55.8	16.11	5	16	18.4	57.9	15.92	7	36	23.2	2.4
16.57	2	16	3.8	1.5	16.22	3	46	11.2	53.9	16.80	2	17	18.6	56.8	17.88	2	36	23.2	2.6
15.47	7	16	3.8	7.1	17.34	2	47	11.4	15.9	16.85	2	17	18.7	57.0	17.36	2	36	23.2	3.9
16.56	2	16	3.9	1.9	16.58	2	48	11.7	55.4	16.60	2	19	19.1	56.3	16.35	3	36	23.3	0.0
15.33	8	17	4.0	3.4	16.75	2	49	11.8	57.8	16.41	3	19	19.1	59.1	14.66	8	37	23.3	10.4
16.13	3	17	4.0	5.4	16.86	2	49	11.9	58.0	15.11	8	19	19.2	56.6	16.95	2	37	23.4	3.4
15.70	5	17	4.0	10.5	17.14	2	49	11.9	15.4	16.50	3	20	19.2	58.6	15.06	8	37	23.4	8.3
16.65	2	17	4.1	2.6	16.51	3	49	12.0	58.5	16.80	2	20	19.3	57.1	16.53	2	37	23.4	10.6
16.26	3	17	4.1	4.4	12.71	10	50	12.1	57.6	13.60	10	21	19.6	55.4	15.69	8	37	23.5	59.6
16.92	2	18	4.3	10.8	16.24	7	51	12.2	15.6	15.34	8	21	19.6	56.7	14.76	9	38	23.6	9.0
16.13	5	18	4.4	2.6	15.36	8	52	12.4	16.4	15.81	7	21	19.6	57.9	16.55	2	38	23.7	2.1
16.29	3	19	4.5	5.0	16.96	2	52	12.6	54.3	17.65	2	22	19.8	57.0	16.80	2	39	23.8	4.1
16.47	2	19	4.6	58.9	15.33	8	52	12.6	58.2	17.21	2	22	19.8	59.6	16.18	5	39	23.8	5.0
16.75	2	19	4.6	0.4	16.60	3	52	12.6	58.9	16.02	5	22	19.9	59.0	15.12	8	39	23.8	9.6
13.11	11	19	4.6	2.1	16.76	2	52	12.6	16.2	16.66	2	24	20.2	57.0	17.58	2	39	23.9	5.3
16.54	2	19	4.6	3.1	17.19	2	53	12.7	57.1	16.56	2	24	20.2	59.6	15.52	8	39	23.9	7.4
13.44	10	19	4.6	6.8	16.74	2	53	12.8	56.8	17.32	2	24	20.3	59.9	14.57	9	39	24.0	10.1
16.86	2	19	4.6	9.0	14.78	8	53	12.9	57.6	17.60	2	27	21.0	3.1	17.55	2	40	24.1	4.6
14.98	8	21	5.0	7.4	16.48	2	54	13.0	54.0	13.93	11	27	21.1	58.4	16.61	2	40	24.1	9.8
15.60	8	21	5.1	3.9	15.97	5	54	13.1	59.8	15.14	8	27	21.1	5.2	16.09	5	40	24.2	3.2
16.72	2	21	5.1	8.1	14.43	10	55	13.2	55.1	16.55	3	27	21.1	10.0	16.62	2	40	24.2	7.6
16.62	2	22	5.2	4.9	16.12	7	56	13.5	55.6	13.33	10	28	21.2	58.3	16.60	2	41	24.3	2.0
16.25	7	22	5.3	4.4	13.90	11	56	13.6	57.8	15.93	5	28	21.2	2.8	13.65	10	41	24.3	3.0
17.15	2	22	5.3	5.0	16.27	5	56	13.6	15.4	14.81	9	29	21.4	0.4	14.55	8	41	24.4	4.2
16.52	2	22	5.3	6.4	16.34	5	57	13.7	58.9	15.24	8	28	21.4	1.8	14.44	9	41	24.4	5.4
17.06	2	22	5.4	3.9	14.46	9	58	13.9	54.2	14.59	9	29	21.4	2.3	16.50	2	42	24.6	3.6
16.13	7	23	5.4	10.6	16.92	2	59	14.2	55.7	15.90	7	29	21.4	7.1	17.90	2	42	24.6	5.6
16.21	5	23	5.4	12.0	14.09	10	59	14.2	16.3	17.02	2	29	21.5	2.6	17.06	2	43	24.9	3.6
13.97	11	23	5.4	12.9	15.48	8	60	14.6	54.0	17.48	2	29	21.6	57.6	17.22	2	43	24.9	4.4
16.94	2	23	5.6	3.2	17.42	2	61	14.7	55.6	17.66	2	29	21.6	59.2	16.52	2	44	25.1	4.6
16.03	7	24	5.7	3.7	16.38	3	61	14.8	56.3	16.86	2	30	21.6	59.4					
17.28	2	24	5.8	5.0	16.86	2	62	14.9	57.9	16.29	3	30	21.6	12.2					
15.77	7	24	5.8	11.9	16.68	3	62	14.9	59.1	16.49	2	30	21.7	58.8					
15.12	8	24	5.9	7.8	18.16	2	63	15.2	55.7	16.70	2	30	21.7	3.0					
16.17	7	24	5.9	10.5	15.78	7	63	15.2	57.4	16.43	3	30	21.7	9.5					
15.26	8	25	6.0	59.2	15.52	8	63	15.3	57.6	15.13	8	31	21.9	0.0					
15.14	8	25	6.1	59.4	14.90	9	63	15.3	58.9	17.57	2	31	21.9	7.0					
17.30	2	26	6.3	59.2	17.10	2	64	15.4	54.3	16.68	2	31	21.9	9.4					
16.15	5	27	6.4	58.6	16.47	3	64	15.4	56.2	16.82	2	31	22.0	1.1					
16.07	5	29	7.0	58.0	15.41	8	64	15.4	58.4	16.15	7	32	22.1	2.4					
16.01	5	31	7.5	57.4	15.34	7	64	15.4	59.1	17.52	2	32	22.2	1.2					
16.19	5	33	8.0	59.1	14.48	10	64	15.5	54.9	17.84	2	32	22.2	6.2					
17.69	2	35	8.4	56.5	17.00	2	66	15.9	59.8	16.07	5	32	22.3	7.1					
17.32	2	35	8.6	56.1	16.31	7	67	16.2	0.0	16.31	5	32	22.3	8.3					
15.47	7	36	8.6	57.9	16.15	7	68	16.3	59.8	15.94	7	33	22.4	59.0					
17.63	2	36	8.8	59.6	15.10	8	68	16.4	16.3	16.89	2	33	22.4	1.6					
14.53	9	38	9.1	55.6	15.14	8	69	16.6	55.3	16.90	2	33	22.4	2.2					
16.78	2	38	9.1	58.4	17.34	2	69	16.7	55.8	17.49	2	33	22.4	3.8					
15.83	7	39	9.3	58.0	15.19	8	69	16.7	59.0	15.86	5	33	22.4	4.3					
16.54	3	39	9.4	57.6	14.85	8	71	17.2	56.0	14.44	10	33	22.4	8.6					

25 prec, + $85^{s}.3$, − 2′ 41″

Area 76. Center for 1900: $8^h\ 15^m + 15°\ 0'$ ($15' \times 15'$)

1—60				61—120				121—180				181—212			
Mag.	α 15^m	x	$y+60'$ / y	Mag.	α 15^m	x	$y+60'$ / y	Mag.	α 15^m	x	$y+60'$ / y	Mag.	α 15^m	x	$y+60'$ / y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
18.85 1	4.4	1.07	5 03	19.27 1	26.9	6.49	57 18	15.57 9	39.8	9.62	0 05	13.73 13	56.2	13.57	55 22
16.58 4	4.7	1.12	4 17	15.74 9	27.0	6.52	3 28	18.05 2	40.3	9.73	55 10	18.22 1	56.5	13.66	5 49
16.52 7	4.9	1.17	57 18	19.06 1	27.1	6.54	8 33	19.36 1	40.8	9.86	59 12	17.88 1	56.5	13.66	9 41
16.70 3	5.2	1.26	4 57	18.13 2	27.2	6.57	4 28	19.16 1	40.9	9.88	55 51	16.36 9	57.4	13.87	3 31
14.60 11	5.4	1.30	55 11	17.50 3	27.5	6.65	57 07	19.06 1	41.1	9.93	0 20	15.74 9	57.7	13.95	55 04
18.00 3	6.1	1.48	8 46	16.69 5	27.5	6.66	8 08	18.53 1	41.2	9.95	3 02	16.84 3	58.0	14.00	7 49
17.25 3	6.8	1.65	3 09	18.11 3	28.3	6.82	0 26	16.63 5	41.4	10.01	5 26	15.67 10	58.3	14.08	3 41
18.22 1	7.4	1.78	2 11	17.94 3	28.3	6.83	55 51	19.16 1	41.5	10.02	5 59	14.90 11	58.8	14.19	56 27
16.88 3	7.6	1.83	59 50	19.06 1	28.3	6.83	6 22	19.36 1	41.5	10.03	1 04	16.86 3	59.7	14.43	9 38
18.85 1	8.1	1.95	9 26	17.96d 1	28.6	6.89	4 20	17.70 3	41.6	10.04	1 32	17.96 1	59.8	14.44	8 57
18.05 1	8.1	1.95	55 12	16.10 9	28.8	6.94	59 51	15.29 10	41.6	10.05	56 34	19.06 1	59.9	14.48	57 21
15.74 9	8.9	2.16	56 23	16.80 6	29.4	7.11	6 15	17.47x 3	41.7	10.08	5 46	18.10 3	60.0	14.51	58 07
17.91 3	9.7	2.34	0 46	17.55 3	29.6	7.14	5 59	15.53 9	41.8	10.09	9 31	18.02 3	60.7	14.67	0 55
14.90 11	10.0	2.42	3 21	12.68 16	29.6	7.14	3 10	18.74 1	41.8	10.09	3 49	18.31 3	60.8	14.69	0 21
16.52 7	10.6	2.56	5 58	15.36 9	29.8	7.20	6 02	17.43 3	42.1	10.17	59 06	17.46 3	60.8	14.69	55 06
18.95 1	11.0	2.66	8 55	18.95 1	30.0	7.24	8 37	18.32 1	42.3	10.22	55 09	18.08 3	61.5	14.84	4 11
18.22 1	11.7	2.82	4 29	14.06 12	30.0	7.26	7 52	17.88 1	42.8	10.34	9 45	18.05 1	61.5	14.86	5 55
17.48 2	12.2	2.94	2 59	18.22 2	30.1	7.28	8 09	15.75 9	42.8	10.35	57 56	13.22 13	61.6	14.87	2 34
16.74 4	12.3	2.98	5 16	17.86 3	30.1	7.28	4 50	15.46 10	43.4	10.47	56 05	17.96 1	62.1	15.01	9 27
16.66 4	12.6	3.05	57 05	18.64? 1	30.2	7.31	5 43	13.20 15	43.7	10.55	0 48	18.85 1	62.7	15.15	7 50
16.52 6	13.2	3.20	5 21	17.92 3	30.4	7.36	55 58	17.96 1	43.7	10.56	6 48	17.00 3	63.3	15.31	58 55
18.13 1	13.2	3.21	9 07	19.27 1	30.5	7.38	4 40	19.06 1	43.8	10.57	2 20	16.93 4	64.0	15.44	5 59
13.09 15	13.6	3.29	56 49	18.22x 1	30.8	7.45	0 41	18.43 1	44.1	10.66	9 59	18.22 3	64.0	15.45	58 19
13.87 11	13.6	3.29	9 02	18.05 1	31.1	7.51	6 11	18.95 1	44.5	10.76	9 20	18.22 1	64.2	15.50	57 29
19.06 1	13.8	3.33	56 13	18.85? 1	31.2	7.52	58 56	17.81 3	44.7	10.80	56 12	18.85 1	65.2	15.76	7 04
18.85 1	13.9	3.34	0 54	18.43 1	31.3	7.55	5 27	17.04 3	44.9	10.86	8 49	18.53 1	65.3	15.77	2 08
16.89 4	14.1	3.40	0 35	17.54 3	31.3	7.56	9 31	18.36 2	45.3	10.95	1 00	18.85 1	65.5	15.82	7 23
19.06 1	14.4	3.47	4 22	19.16 1	31.3	7.56	0 17	19.16 1	45.5	11.01	59 29	9.96w 8	65.7	15.88	55 12
18.05 1	14.6	3.52	3 25	16.50 6	31.5	7.60	5 10	19.27 1	46.1	11.12	59 47	17.94 3	65.8	15.90	56 32
16.56 6	14.8	3.58	8 38	19.36 1	31.5	7.60	58 42	18.23 3	46.2	11.15	3 12	18.32 1	65.8	15.91	4 57
18.13 1	15.0	3.62	9 50	18.64 1	32.1	7.76	59 28	18.41 3	46.4	11.21	2 35	16.93d 1	65.9	15.93	57 06
14.73 11	15.5	3.74	59 42	18.85 1	32.8	7.92	4 31	17.59 3	46.7	11.27	58 23	18.95 1	66.0	15.96	59 58
18.53 1	15.6	3.77	8 40	19.36 1	33.1	8.01	58 17	17.88 3	47.1	11.38	8 40				
19.16 1	16.3	3.95	57 48	15.83 9	33.5	8.10	4 44	17.88 1	47.4	11.44	9 34				
17.88d 1	16.5	3.98	8 27	9.57w 7	33.5	8.11	1 27	19.06 1	47.6	11.49	55 45				
12.97 15	16.6	4.01	56 04	15.58 10	34.1	8.24	0 21	18.74 1	47.6	11.50	5 36				
15.91 9	17.4	4.19	7 03	18.30 2	34.7	8.37	2 17	18.05 1	47.6	11.51	8 47				
14.13 12	18.7	4.56	4 32	16.65 4	34.8	8.40	7 51	18.46 2	47.8	11.56	56 56				
18.32 1	18.7	4.56	4 35	18.53 1	35.2	8.51	8 57	14.49 12	48.6	11.74	55 22				
17.01 3	19.2	4.64	5 41	18.85 1	35.5	8.57	5 00	18.38 2	48.8	11.78	59 12				
16.11 9	19.8	4.77	1 13	17.12 6	35.6	8.60	0 03	18.24 3	48.9	11.81	4 26				
15.16 10	20.5	4.94	8 24	16.06 9	35.9	8.68	59 09	16.89 3	49.0	11.83	9 41				
17.39 3	21.1	5.10	55 16	18.32 1	36.2	8.74	56 05	16.92 3	49.1	11.84	56 20				
19.06 1	21.3	5.15	5 25	19.46 1	36.2	8.74	0 14	14.96 10	49.7	12.00	8 22				
17.88 1	21.4	5.17	9 57	18.16 3	36.2	8.74	0 11	19.06 1	51.2	12.38	4 27				
18.53 1	21.4	5.17	59 49	19.36 1	36.3	8.77	2 57	14.87 11	51.7	12.49	57 43				
18.64 1	21.8	5.27	8 26	18.22 1	36.4	8.79	8 25	19.06 1	52.0	12.54	57 57				
18.53 1	22.3	5.36	0 20	17.96 1	36.6	8.84	7 19	16.86 5	52.0	12.54	6 23				
15.48 9	23.0	5.55	0 41	15.14 10	36.7	8.87	1 40	16.59 5	52.4	12.66	0 10				
16.99 4	23.1	5.57	4 34	15.25 10	36.7	8.88	0 12	16.98 4	52.7	12.73	1 16				
15.45 10	23.1	5.58	2 24	17.01 3	37.3	9.00	57 33	16.58 5	52.8	12.75	0 47				
16.96 6	24.0	5.80	0 16	18.95 1	37.7	9.09	9 59	16.72 3	53.2	12.86	56 43				
17.88 3	24.6	5.95	7 48	15.28 9	37.8	9.13	59 02	17.42 3	53.2	12.86	58 36				
18.43 1	24.6	5.95	5 44	19.27 1	37.9	9.15	3 56	17.50 3	53.4	12.89	58 29				
18.74 1	25.1	6.06	4 25	16.99 4	38.7	9.34	8 26	17.95 3	53.6	12.96	8 59				
13.48 12	25.5	6.16	4 23	17.50 3	38.7	9.35	55 51	14.76 12	53.8	12.99	1 12				
18.32 1	25.5	6.16	5 41	13.30 15	38.9	9.40	57 52	18.43 1	53.8	13.00	2 35				
18.05 3	25.8	6.23	55 31	14.12 12	39.1	9.46	57 59	18.31 2	54.8	13.24	0 59				
16.12 9	26.3	6.35	59 04	18.13 1	39.2	9.48	2 50	17.89 3	55.7	13.45	7 27				
17.18 3	26.5	6.40	7 53	18.05 1	39.5	9.55	5 10	18.85 1	56.1	13.54	9 58				

25 prec. + $84^s.1$, − 4′ 39″

8^h Area 76. Supplementary Stars + 14°, + 15°

1s—20s				
Mag.		α 14^m	x	y+60′ / y
		s	′	′
16.25	3	50	97.6	6.0
17.59	2	51	97.8	58.4
16.38	2	52	98.1	56.5
17.90	2	53	98.2	59.0
17.95	2	53	98.2	5.6
15.89	7	53	98.4	59.7
17.64	2	55	98.7	7.7
14.20	10	55	98.8	0.1
17.65	2	55	98.8	2.4
16.83	2	55	98.9	59.7
18.04	2	57	99.4	4.8
17.76	2	57	99.4	5.2
14.31	10	58	99.4	7.7
16.72	4	58	99.6	6.7
16.27	4	59	99.8	3.8
15.04	8	61	0.2	1.6
15.32	8	61	0.2	3.2
16.75	2	61	0.4	1.0
15.12	7	69	2.1	54.7
17.19	2	69	2.2	53.8

21s—40s				
Mag.		α 15^m	x	y+60′ / y
		s	′	′
12.32	13	10	2.5	51.4
16.49	2	11	2.7	51.8
13.35	13	14	3.4	53.6
17.21	2	17	4.1	10.3
16.78	2	17	4.1	10.7
16.52	2	19	4.6	51.3
17.60	2	20	4.9	10.4
17.69	2	22	5.2	50.8
17.73	2	22	5.3	10.4
17.96	2	24	5.8	51.1
15.07	8	24	5.8	53.4
17.64	2	28	6.7	50.9
18.05	2	29	7.0	53.6
16.69	4	31	7.4	53.9
16.50	2	31	7.5	51.4
14.95	9	32	7.8	54.4
16.03	3	33	8.0	12.8
14.17	10	37	8.9	51.6
15.77	7	37	9.0	11.0
18.04	2	38	9.2	51.1

41s—60s				
Mag.		α 15^m	x	y+60′ / y
		s	′	′
15.10	7	39	9.3	12.6
14.99	8	40	9.6	51.2
17.03	2	43	10.5	53.7
16.43	2	46	11.1	52.6
16.68	2	48	11.6	10.8
16.89	2	54	13.1	51.4
16.38	2	59	14.2	52.0
14.81	9	62	14.9	54.7
17.77	2	62	14.9	10.5
17.87	2	63	15.1	53.6
17.14	2	66	15.9	54.0
16.26	3	67	16.2	56.8
15.40	3	69	16.8	55.2
14.92	8	70	16.8	5.2
16.67	3	70	16.9	2.0
15.79	6	72	17.4	56.0
17.86	2	72	17.4	5.3
15.91	6	73	17.6	2.5
18.09	2	73	17.6	3.4
16.74	2	75	18.2	58.2

61s—66s				
Mag.		α 16^m	x	y+60′ / y
		s	′	′
17.93	2	16	18.2	5.4
17.48	2	15	18.2	6.0
16.14	3	17	18.5	0.0
16.16	5	17	18.6	1.6
18.01	2	18	18.9	3.4
16.91	2	19	19.1	59.8

25 prec. + $84^{s}.1$, − 4′ 39″

9^h Area 77. Center for 1900: 9^h 10^m + 14° 30′ (15′ × 15′) + 14°

1—30				
Mag.		α 10^m	x	y+30′
		s	′	′ ″
15.89	6	7.0	1.70	27 28
17.78	1	7.1	1.72	38 51
15.21	8	8.1	1.96	37 25
18.27?	1	8.9	2.16	30 40
15.16	6	10.1	2.44	29 54
17.01	3	10.1	2.44	25 14
15.70	6	10.4	2.51	33 28
15.52	6	12.5	3.03	34 10
13.97	9	13.0	3.16	39 15
18.20	1	13.9	3.35	25 21
16.34	6	15.1	3.64	29 46
17.62	3	15.7	3.80	26 51
17.60	3	16.7	4.03	32 45
16.01	5	17.2	4.15	39 07
13.72	12	18.4	4.46	25 26
16.32	6	19.5	4.71	28 19
17.62	3	20.2	4.88	38 34
18.27	1	24.0	5.79	26 50
17.85	3	24.5	5.92	33 42
17.85	3	25.2	6.08	38 04
16.24	6	26.3	6.34	39 44
17.71	1	26.5	6.41	39 43
17.83	3	26.7	6.44	27 32
15.90	6	27.7	6.69	34 35
18.06	1	28.0	6.76	33 11
15.47	6	28.4	6.84	37 30
15.84	6	29.0	7.01	31 46
15.63	6	29.4	7.09	27 10
17.80	3	30.4	7.34	26 36
16.73	3	30.6	7.39	27 07

31—60				
Mag.		α 10^m	x	y+30′
		s	′	′ ″
17.04	3	30.7	7.43	32 58
17.78	1	30.9	7.46	38 34
15.92	5	31.5	7.60	38 27
17.52	3	31.7	7.62	34 32
17.55	3	32.7	7.90	28 42
17.77	3	33.3	8.06	35 27
17.37	3	34.1	8.24	31 50
13.78	11	34.6	8.35	27 57
18.27?	1	35.2	8.49	38 29
18.27	1	35.8	8.64	27 10
18.34?	1	36.0	8.70	37 11
17.85	3	36.4	8.80	26 02
14.18	10	37.5	9.05	29 50
8.66w	**7**	**37.8**	**9.12**	**32 54**
17.75	3	41.0	9.91	39 47
13.81	11	41.2	9.94	26 32
17.49	3	41.2	9.94	30 05
16.79	4	43.4	10.47	28 18
18.34	1	43.5	10.51	28 43
17.86	3	43.6	10.52	35 09
15.86	6	44.1	10.65	35 20
13.28	12	44.1	10.66	35 33
16.90	3	45.0	10.89	36 04
16.25	6	45.3	10.96	39 34
18.34	1	45.6	11.03	27 24
18.48	1	45.9	11.09	32 34
17.67	3	46.1	11.13	26 54
16.10	6	46.2	11.14	37 11
18.14	3	46.9	11.33	30 55
17.42	3	47.4	11.44	30 15

61—87				
Mag.		α 10^m	x	y+30′
		s	′	′ ″
15.36	6	48.2	11.64	25 03
17.80	3	48.4	11.69	35 44
17.70	3	48.6	11.74	36 51
16.18	6	49.0	11.83	35 54
17.63	3	49.1	11.84	37 51
15.68	6	49.1	11.85	32 35
17.72	3	49.3	11.90	28 09
18.00	2	49.3	11.91	32 51
17.18	3	49.8	12.02	31 19
14.68	8	50.7	12.24	31 41
18.06	1	51.2	12.38	27 59
18.34	1	51.7	12.48	34 21
14.24	9	52.3	12.63	36 35
18.27	1	53.4	12.91	27 11
17.99	1	53.6	12.95	26 08
17.88	3	58.5	14.13	32 23
17.67	3	58.7	14.18	32 20
11.15w	13	59.0	14.25	35 59
14.44	10	60.4	14.59	26 51
17.71	1	60.6	14.65	29 29
17.75	3	62.3	15.05	31 02
17.63	3	63.0	15.22	31 33
18.20	1	64.6	15.59	38 44
13.31	12	66.0	15.94	25 27
17.04	3	66.3	15.99	27 35
11.38w	13	67.2	16.23	36 35
18.20	1	67.9	16.41	38 24

1s—30s				
Mag.		α 9^m	x	y+30′
		s	′	′
15.14	5	53	98.3	32.5
16.50	2	54	98.6	36.4
13.55	11	55	98.7	28.9
11.97	11	55	98.7	29.9
15.19	7	55	98.9	28.2
17.48	2	55	98.9	28.6
13.21	11	56	99.1	38.2
15.94	5	58	99.6	33.6
15.21	7	61	0.2	26.4
17.14	2	61	0.3	38.9
17.49	2	61	0.4	39.3
17.49	2	62	0.6	25.4
17.74	2	63	0.8	34.4
16.58	2	66	1.4	25.3
17.71	2	67	1.6	29.2
13.48	9	67	1.6	34.3
17.06	2	67	1.7	41.4
17.52	2	74	3.5	24.2
15.40	5	75	3.7	40.6
17.43	2	77	4.0	24.4
17.56	2	83	5.4	40.8
14.38	9	83	5.6	24.9
13.31	11	84	5.9	22.4
17.49	2	87	6.4	43.4
12.02	11	90	7.2	22.8
17.31	2	90	7.2	42.9
17.68	2	92	7.8	24.2
14.69	7	94	8.2	23.7
16.68	2	100	9.8	24.2
16.68	3	101	9.9	41.7

31s—47s				
Mag.		α 10^m	x	y+30′
		s	′	′
14.30	9	43	10.3	23.2
16.94	2	44	10.6	25.0
15.88	5	50	12.0	41.9
16.64	3	61	14.7	23.8
17.23	2	62	15.0	41.2
15.62	5	67	16.1	23.8
15.27	7	67	16.2	41.3
16.59	2	69	16.6	39.4
17.58	2	74	17.9	26.4
16.65	3	74	18.0	35.9
14.93	7	75	18.1	39.4
18.18	2	75	18.2	34.6
15.80	5	76	18.3	39.6
17.65	2	77	18.6	30.8
16.54	3	77	18.6	39.2
15.98	5	81	19.6	34.9
17.54	2	81	19.6	35.4

25 prec. + $82^{s}.6$, − 6′ 10″

Area 78. Center for 1900: $10^h\ 13^m$ + 15° 10′ (20′ × 20′)

1—20			
Mag.	α 13^m	x	y+10′
	s	′	′ ″
17.31 1	14.2	3.43	1 50
16.48 6	15.1	3.66	14 16
17.47 3	15.3	3.69	14 09
17.71 3	18.3	4.43	6 35
17.98 1	19.3	4.66	5 12
15.94 6	20.1	4.84	9 39
17.93 1	21.0	5.06	18 09
17.73 3	21.6	5.22	3 37
17.82 1	22.6	5.44	15 44
17.58 3	24.5	5.98	9 00
18.09 1	25.4	6.13	8 53
16.75 1	27.6	6.68	0 10
16.71 3	27.7	6.70	14 59
17.30 3	28.8	6.94	1 46
14.56 10	29.0	7.00	6 11
14.89 9	29.2	7.05	11 37
18.03 1	29.3	7.07	5 31
17.57 2	30.1	7.28	14 47
18.03 1	31.5	7.59	14 41
17.61 1	32.4	7.79	16 29

21—40			
Mag.	α 13^m	x	y+10′
	s	′	′ ″
15.61 8	32.6	7.87	12 09
17.13 3	34.3	8.28	17 14
16.66 5	35.4	8.53	17 26
15.94 7	36.4	8.80	8 19
16.73 6	36.7	8.87	11 23
17.51 3	37.1	8.96	6 41
16.77 6	39.2	9.47	11 03
17.82 1	39.5	9.54	1 48
18.09 1	39.6	9.55	15 42
16.45 4	40.6	9.79	8 15
17.48 3	41.9	10.13	1 05
16.64 4	42.0	10.14	6 46
17.98 1	42.9	10.37	1 11
17.85 3	43.1	10.40	9 26
17.80 3	44.6	10.78	14 45
11.46w14	45.4	10.97	3 21
17.72 2	46.9	11.33	2 45
17.51 3	47.0	11.36	1 56
16.98 3	47.8	11.55	14 39
16.69 6	47.9	11.57	10 50

41—60			
Mag.	α 13^m	x	y+10′
	s	′	′ ″
17.82 2	48.8	11.78	11 59
10.58w 9	52.6	12.68	18 35
18.19 1	53.0	12.76	9 33
15.21 9	54.0	13.06	13 12
9.58w 7	54.0	13.06	10 12
17.62 2	56.3	13.59	11 38
14.08 11	56.7	13.69	9 44
17.96 2	56.7	13.70	7 57
17.24x 2	57.8	13.96	13 13
17.39 3	58.3	14.08	9 51
13.99w11	59.2	14.30	3 34
18.07 2	60.0	14.45	16 51
16.34 6	60.8	14.65	17 37
16.76 4	63.2	15.28	2 28
14.94 9	67.0	16.17	9 45
17.82 1	67.1	16.18	16 51
17.26 3	68.8	16.65	12 05
17.01 3	68.8	16.65	1 09
17.93 1	70.6	17.05	0 58
17.75 3	70.8	17.09	2 19

61—80			
Mag.	α 14^m	x	y+10′
	s	′	′ ″
16.75 4	11.3	17.22	6 07
17.02 3	12.7	17.55	9 19
17.72 3	13.2	17.68	7 01
17.82 1	13.4	17.73	14 43
13.92 12	14.3	17.94	7 59
16.56 4	16.8	18.56	9 05
16.78 6	17.0	18.60	11 27
17.22 3	18.2	18.86	17 00
16.52 6	18.7	19.01	12 50
9.65w 8	19.2	19.12	10 44
17.98 1	19.6	19.23	13 58
17.87 1	19.8	19.28	0 30
17.98 1	20.7	19.54	12 03
14.76 10	21.3	19.61	19 07
17.08 3	22.2	19.84	12 48
17.65 3	22.2	19.84	4 21
13.84 12	23.7	20.22	7 30
15.00 9	24.2	20.34	11 27
11.55w14	27.2	21.08	3 20
17.62 3	28.5	21.37	7 49

81—87			
Mag.	α 14^m	x	y+10′
	s	′	′ ″
16.30 6	28.8	21.44	11 28
11.52w13	30.9	21.94	15 27
17.25 1	32.3	22.27	17 29
16.01 6	32.6	22.36	3 45
14.63 10	32.7	22.38	5 06
14.72 1	33.3	22.53	16 49
15.91 6	35.0	22.96	15 23

1s—3s			
Mag.	α 13^m	x	y+10′
	s	′	′
17.05 2	7	1.7	9.0
13.84 10	39	9.4	20.7
13.77 11	67	16.2	21.0

25 prec. + 80^{s}8, − 7′ 28″

11^h

Area 79. Center for 1900: $11^h\ 17^m$ + 14° 50′ (20′ × 20′)

+ 14°, + 15°

1—30			
Mag.	α 17^m	x	y+50′
	s	′	′ ″
18.03 1	0.2	0.04	56 53
18.44 1	0.5	0.13	40 30
18.60 1	1.8	0.43	43 39
18.11 1	3.2	0.77	56 00
17.78 1	3.7	0.91	43 33
18.68 1	6.4	1.54	58 55
17.39 3	8.6	2.07	47 49
11.15w10	8.7	2.09	59 37
15.87 9	9.0	2.17	44 02
18.76 1	9.3	2.24	51 17
18.76 1	9.6	2.32	45 58
17.70 1	9.7	2.37	44 50
16.67 3	9.9	2.39	51 37
17.24x 3	12.2	2.98	44 39
15.88 9	12.4	3.01	48 17
18.11 1	13.8	3.32	57 23
15.66 9	13.8	3.33	50 34
14.61 10	14.2	3.42	53 41
18.68 1	14.5	3.50	59 09
16.79 3	15.8	3.82	43 10
14.31 10	17.1	4.13	59 38
16.57 3	19.4	4.69	47 49
18.60 1	20.4	4.92	53 25
14.74 10	20.8	5.03	47 36
16.82 3	21.1	5.11	52 43
18.19 1	21.3	5.16	46 14
17.95 1	22.9	5.52	57 41
16.91 3	24.3	5.87	55 44
18.19 1	24.4	5.89	59 13
18.60 1	24.4	5.89	40 07

31—60			
Mag.	α 17^m	x	y+50′
	s	′	′ ″
18.19 1	25.0	6.05	52 47
13.64 14	25.6	6.17	47 19
18.11 1	27.5	6.65	46 18
14.04 11	27.7	6.70	46 52
18.76 1	28.6	6.90	43 06
17.87 1	29.8	7.19	58 27
17.78 1	30.3	7.34	44 46
18.93 1	30.8	7.45	56 14
16.46 4	31.1	7.51	53 55
18.93 1	31.4	7.57	48 40
18.35 1	32.0	7.72	50 38
14.84 10	34.0	8.22	57 00
17.38 3	34.2	8.27	57 56
17.87 1	35.0	8.46	54 41
17.12 3	35.3	8.58	49 11
16.05 7	36.6	8.85	44 58
17.25 . 3	38.9	9.39	55 23
19.19 1	38.9	9.40	51 42
14.73 10	39.3	9.50	58 00
16.01 8	39.8	9.62	46 17
9.60w 6	41.6	10.05	52 19
17.95 1	41.6	10.06	43 17
17.61 2	43.1	10.41	52 27
17.97 2	43.9	10.56	50 08
15.86 9	44.9	10.86	41 15
16.12 7	45.8	11.07	47 08
17.36 3	46.7	11.27	55 25
17.70 1	47.2	11.40	41 47
18.19 1	48.0	11.61	48 34
18.85 1	49.1	11.84	58 22

61—90			
Mag.	α 17^m	x	y+50′
	s	′	′ ″
18.76 1	49.2	11.87	46 19
17.95x 1	49.9	12.04	58 34
16.34 5	50.1	12.10	53 07
12.93 13	53.0	12.94	49 59
13.14 12	55.1	13.31	54 16
18.85 1	55.3	13.36	57 45
18.52 1	55.4	13.38	42 59
15.69 9	57.4	13.87	43 34
19.01 1	57.4	13.88	51 07
18.11 1	57.6	13.93	54 45
18.68 1	57.7	13.94	42 28
12.51 13	59.1	14.27	55 18
16.14 7	60.2	14.55	54 20
18.93 1	60.5	14.63	55 11
18.60 1	63.1	15.26	41 59
17.20 3	63.4	15.33	45 18
15.80 9	65.0	15.76	55 15
17.95 1	65.6	15.86	43 30
14.32 10	66.6	16.08	47 22
18.68 1	67.0	16.17	58 16
18.85 1	67.7	16.34	53 58
15.70 9	68.5	16.54	48 33
16.94 3	68.5	16.55	55 19
18.85 1	68.6	16.58	49 14
11.07w11	68.9	16.64	57 17
17.62 1	69.1	16.71	40 18
17.62 1	70.6	17.04	57 36
15.46 9	71.0	17.14	53 49
16.99 1	73.2	17.67	42 36
17.95 1	73.3	17.71	50 33

91—106			
Mag.	α 18^m	x	y+50′
	s	′	′ ″
17.95 1	13.7	17.81	47 26
15.87 7	13.9	17.86	57 11
16.76 1	14.1	17.90	42 00
18.44 1	14.2	17.92	48 44
15.98 6	14.2	17.93	47 18
17.62 1	15.2	18.17	44 36
17.87 1	16.1	18.37	40 22
17.34 3	16.2	18.41	45 14
15.33 9	16.5	18.48	55 42
17.95 1	16.6	18.50	43 27
17.87 1	17.4	18.69	40 14
18.76 1	18.0	18.85	51 50
17.54 1	19.6	19.22	44 15
16.92 3	19.7	19.25	47 50
14.78 1	19.8	19.27	43 31
16.68 1	19.8	19.27	44 09

1s—6s			
Mag.	α 16^m	x	y+50′ / y−10′
	s	′	′
15.77 7	58	99.4	53.3
15.80 6	90	7.3	3.4
17.00 2	92	7.8	1.4
16.07 4	113	12.9	0.4
17.48 2	114	13.2	3.2
16.68 2	146	20.7	51.6

25 prec. + 78^{s}3, − 8′ 13″

Area 80. Center for 1900: 12^{h} 12^{m} + 15° 0′ (20′ × 20′)

1—30				31—60				61—90				91—111				1s—7s			
Mag.	α 11^{m}	x	y+60′ y	Mag.	α 12^{m}	x	y+60′ y	Mag.	α 12^{m}	x	y+60′ y	Mag.	α 13^{m}	x	y+60′ y	Mag.	α 11^{m}	x	y+60′ y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
18.60 1	51.7	98.00	1 09	18.97 1	18.1	4.38	55 59	17.33 3	42.0	10.14	56 57	18.84 1	1.3	14.81	0 49	17.62 2	51	97.8	58.4
18.17 1	52.8	98.26	59 07	17.88 2	19.5	4.71	56 39	12.73 15	42.4	10.26	54 38	17.30 3	1.8	14.93	8 37	14.55 10	79	4.6	48.8
18.84 1	52.9	98.29	0 01	18.23x 1	19.7	4.75	54 05	17.92 1	43.3	10.46	50 04	15.62 2	1.9	14.94	50 34	17.49 2	87	6.4	11.0
16.51 1	53.3	98.38	8 14	18.97x 1	19.9	4.79	56 59	17.59 2	44.0	10.62	55 00	17.54x 2	2.0	14.97	2 29	17.22 2	95	8.4	10.9
14.82 9	54.1	98.58	57 01	17.88 2	20.7	4.99	5 00	16.30 4	46.0	11.10	52 43	13.03 13	2.9	15.21	5 35	16.74 2	95	8.5	49.6
18.41 1	55.2	98.84	51 40	17.18 3	21.7	5.24	55 59	18.84 1	46.7	11.28	55 20	17.80 2	4.6	15.61	58 59	16.05 5	138	18.9	3.1
18.66 1	56.2	99.07	50 14	19.03 1	22.8	5.50	56 59	18.66 1	47.1	11.38	6 18	13.51 13	5.6	15.85	56 10	14.47 9	139	19.0	57.5
17.23 3	58.5	99.65	54 58	18.35 1	23.6	5.70	9 54	18.23 1	47.1	11.38	5 10	17.57 3	7.6	16.32	59 14				
16.55 3	59.5	99.88	51 44	15.31 9	24.4	5.91	50 42	18.53 1	47.2	11.39	9 49	16.20 6	7.6	16.32	6 36				
17.22 3	62.5	0.61	53 46	17.72 2	24.5	5.93	5 44	16.98 3	47.3	11.43	59 27	18.29 1	7.7	16.34	7 10				
18.53 1	63.9	0.95	5 18	17.80 1	25.4	6.12	53 14	18.91 1	50.3	12.15	54 35	18.60x 1	7.9	16.39	0 09				
12.81 16	64.0	0.97	53 42	16.04 9	25.5	6.15	7 57	16.22 7	50.5	12.20	0 24	17.73 3	8.8	16.62	57 48				
18.78 1	64.1	1.01	54 41	18.78x 1	25.5	6.16	1 39	18.23 1	51.7	12.49	58 49	17.92 1	9.5	16.79	3 13				
16.04 8	64.7	1.13	51 52	15.97 8	27.0	6.52	57 27	18.60 1	51.8	12.51	3 45	17.98 1	9.9	16.87	3 35				
16.52 4	65.0	1.19	2 22	14.11 11	27.2	6.58	3 34	16.15 8	52.4	12.64	54 02	18.84 1	10.1	16.93	59 21				
18.04 1	66.0	1.46	4 28	18.23 1	28.0	6.76	53 17	16.01 9	52.9	12.77	59 49	15.83 1	10.6	17.04	8 41				
18.72 1	66.4	1.55	50 04	18.53 1	28.2	6.81	9 12	16.95 3	52.9	12.78	53 00	17.56 3	11.1	17.17	59 49				
16.16 8	67.1	1.72	2 00	16.09 9	28.3	6.82	8 58	14.99 8	53.5	12.92	59 21	18.35 1	11.6	17.30	1 31				
18.84 1	68.6	2.07	54 17	19.03 1	28.3	6.83	2 13	17.68 1	54.4	13.14	54 09	13.29 1	11.8	17.34	52 53				
18.84 1	70.0	2.43	53 58	18.23 1	29.5	7.12	53 58	18.66x 1	54.6	13.19	53 59	13.18 14	12.0	17.40	57 42				
14.21 11	70.5	2.52	1 37	18.23 1	29.6	7.16	8 12	17.56x 1	55.5	13.41	50 35	18.66 1	12.1	17.43	9 19				
17.48 3	71.8	2.85	57 11	15.53 9	31.7	7.66	6 27	17.45x 2	56.1	13.56	0 03								
18.47 1	72.8	3.10	57 53	**8.53w 6**	**31.9**	**7.70**	**59 59**	17.98 1	56.3	13.59	0 31								
18.97 1	74.1	3.39	56 33	16.50 4	32.6	7.88	57 42	17.56 2	56.3	13.60	3 25								
18.60 1	74.1	3.40	8 58	16.42 6	35.9	8.68	3 50	18.41 1	57.2	13.82	56 26								
18.35 1	74.8	3.57	8 08	17.24 3	37.9	9.14	7 59	15.63 9	58.3	14.08	7 08								
15.96 9	74.8	3.57	8 49	14.92 9	38.9	9.39	54 23	17.74 2	59.5	14.38	2 04								
17.33 3	76.1	3.91	54 24	17.90 2	39.5	9.55	2 14	18.91 1	59.8	14.46	56 39								
18.84 1	77.4	4.20	52 16	17.57 3	40.0	9.66	53 47	17.49 1	60.6	14.67	50 12								
18.10 1	78.0	4.34	0 02	18.72 1	40.0	9.67	52 58	15.92 7	60.9	14.71	1 37								

25 prec. + 76$^{\mathrm{s}}$.2, − 8′ 20″

13^{h} Area 81. Center for 1900: 13^{h} 12^{m} + 14° 40′ (20′ × 20′) + 14°

1—20				21—40				41—60				61—80				81—100			
Mag.	α 11^{m}	x	y+40′	Mag.	α 11^{m}	x	y+40′	Mag.	α 11^{m}	x	y+40′	Mag.	α 11^{m}	x	y+40′	Mag.	α 12^{m}	x	y+40′
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
19.07 1	23.0	91.05	31 16	16.29 7	32.3	93.31	38 18	16.80 3	43.6	96.05	41 44	17.04 3	56.3	99.11	35 58	17.72 3	8.4	2.02	31 47
19.25 1	24.0	91.30	42 39	19.34 1	33.4	93.58	47 35	18.53 1	43.9	96.10	39 25	18.88 1	57.4	99.38	47 31	17.84 2	9.6	2.33	44 36
18.61 1	24.2	91.36	45 21	15.72 9	33.6	93.61	37 18	18.19 1	44.0	96.12	47 52	17.96 2	59.2	99.82	44 19	18.27x 1	9.7	2.34	30 37
19.07 1	24.7	91.46	32 25	19.34 1	33.9	93.69	42 35	15.49 9	46.7	96.79	44 05	19.72 1	59.4	99.86	43 42	18.44 1	11.3	2.73	40 05
15.13 8	24.7	91.47	48 23	19.07 1	34.2	93.75	31 13	16.91 2	46.8	96.81	42 25	18.53 1	59.6	99.91	37 50	18.44 1	11.5	2.77	49 14
15.59 10	25.0	91.52	36 12	14.53 11	34.3	93.80	41 53	17.13 3	47.4	96.94	33 09	19.72 1	60.0	0.00	40 38	13.07 13	11.7	2.82	30 42
19.25x 1	25.0	91.52	39 23	19.44 1	36.7	94.35	39 22	16.95 4	48.4	97.20	46 48	19.44 1	60.7	0.18	48 59	19.62 1	14.9	3.59	40 21
16.81 4	25.9	91.77	43 04	19.34 1	37.2	94.51	46 53	17.84 2	48.9	97.32	38 48	14.48 10	61.2	0.31	30 43	17.58x 2	14.9	3.59	49 53
17.86 2	26.1	91.80	40 09	15.82 9	38.4	94.78	36 20	18.70 1	49.2	97.38	37 05	19.62 1	61.5	0.37	38 10	19.44 1	15.2	3.67	35 39
17.47 1	26.5	91.90	33 18	18.88 1	38.7	94.84	48 18	19.53 1	49.2	97.38	44 30	17.29 3	61.6	0.38	36 42	17.86 2	16.0	3.89	45 11
18.79 1	27.0	92.00	31 56	18.02x 1	38.7	94.85	30 22	12.91 1	50.7	97.76	30 15	17.86 2	61.8	0.42	32 29	19.25 1	17.1	4.14	32 41
19.25 1	27.1	92.06	45 51	19.44 1	40.2	95.23	44 36	18.98 1	52.0	98.06	34 17	17.21 3	62.2	0.53	31 06	19.62 1	17.6	4.24	41 20
19.25 1	27.8	92.23	47 23	17.48 2	40.6	95.29	36 47	18.36 1	52.7	98.23	35 43	19.62 1	62.4	0.58	38 05	16.27 7	17.9	4.32	37 59
19.25 1	28.7	92.42	36 59	17.24 1	40.8	95.34	31 22	17.21 3	53.2	98.37	42 40	**10.29w 10**	**62.4**	**0.58**	**42 00**	18.53 1	18.5	4.48	39 29
17.12 3	30.0	92.74	46 28	19.44 1	41.0	95.40	47 40	18.79 1	53.5	98.43	37 03	19.44 1	63.3	0.80	34 47	19.16 1	18.8	4.56	36 02
19.07 1	30.4	92.85	45 26	15.86 9	41.1	95.43	46 54	13.81 1	54.5	98.67	30 21	18.53 1	65.9	1.43	37 32	18.44x 1	19.0	4.60	35 43
17.00 2	30.5	92.86	34 40	19.25 1	41.7	95.57	33 05	19.53 1	55.1	98.83	37 34	14.29 11	66.6	1.59	34 42	15.76 9	20.0	4.83	46 39
17.69 2	31.2	93.05	40 21	19.07 1	42.3	95.73	30 11	18.36 1	55.7	98.94	32 32	13.44 13	66.9	1.67	35 46	18.27x 1	20.2	4.89	30 55
16.06 7	31.3	93.06	33 30	17.84 2	42.7	95.82	49 51	14.86 9	55.8	98.99	46 36	17.03 2	67.4	1.78	43 55	19.53 1	20.3	4.91	40 24
19.16 1	31.9	93.19	33 43	17.85 1	42.9	95.87	45 21	16.51 4	56.1	99.04	45 51	18.61 1	68.3	1.99	44 00	15.66 9	20.6	4.99	32 53

25 prec. + 74$^{\mathrm{s}}$.0, − 7′ 57″

13^h Area 81 + 14°

101—115

Mag.		α 12^m	x	y+40′
		s	′	′ ″
16.48	5	21.6	5.23	41 39
12.94	13	22.3	5.40	35 06
18.44x	1	22.7	5.49	31 01
15.88	9	23.7	5.72	46 50
19.25	1	24.5	5.92	32 38
19.44	1	24.8	6.01	35 50
14.72	9	25.4	6.16	34 27
19.53	1	26.2	6.33	43 20
19.44	1	29.2	7.05	41 59
18.36	1	29.4	7.09	47 49
13.46	12	30.3	7.32	47 40
16.54	2	31.0	7.50	30 02
17.74	2	31.2	7.53	44 32
16.26	6	31.5	7.59	47 58
15.46	9	32.6	7.87	47 48

116—130

Mag.		α 12^m	x	y+40′
		s	′	′ ″
17.23	3	32.7	7.90	47 05
17.56	3	34.5	8.32	42 39
19.34	1	34.6	8.36	45 31
14.56	11	34.6	8.37	35 34
17.35	3	35.0	8.48	36 01
15.86	1	35.3	8.56	31 08
19.16	1	35.6	8.62	35 07
17.85	1	35.7	8.64	44 31
18.36	1	35.7	8.64	30 40
18.61	1	36.3	8.81	39 37
18.53	1	36.4	8.81	48 52
16.87	3	36.6	8.86	41 [illegible]8
19.34	1	37.0	8.94	42 53
19.34	1	37.0	8.95	41 44
19.34	1	37.1	8.98	36 50

131—145

Mag.		α 12^m	x	y+40′
		s	′	′ ″
16.61	1	37.4	9.06	33 30
19.07x	1	38.2	9.25	30 13
17.47n	1	38.3	9.27	36 52
19.34x	1	38.6	9.33	41 13
19.16	1	38.7	9.38	35 54
17.39	3	39.0	9.44	36 42
14.12	1	39.4	9.54	34 07
18.18	2	39.5	9.56	44 17
18.61	1	40.4	9.75	42 46
18.79x	1	40.9	9.87	49 43
17.85x	1	41.5	10.06	33 08
19.16x	1	42.0	10.15	47 01
17.77d	1	42.4	10.25	45 55
17.54d	1	43.8	10.58	46 21
17.37	3	44.5	10.75	42 02

1*s*—6*s*

Mag.		α 11^m	x	y+40′
		s	′	′
17.20	2	22	90.7	41.0
14.88	8	35	94.0	50.2
15.80	7	41	95.4	50.7
17.55	2	47	96.8	52.6
15.87	7	68	2.0	51.2
16.08	6	78	4.2	51.2

25 prec. + 74^s.0, − 7′ 57″

14^h Area 82. Center for 1900: 14^h 14^m + 15° 20′ (20′ × 20′) + 15°

1—35

Mag.		α 14^m	x	y+20′
		s	′	′ ″
18.33	1	0.0	0.01	28 09
16.04	1	1.0	0.25	15 46
17.53	3	1.2	0.31	26 17
16.28	8	1.4	0.34	18 49
17.72	2	1.9	0.46	26 31
18.39	1	2.3	0.54	28 36
17.78	1	2.5	0.59	25 39
17.78	1	3.1	0.74	34 33
14.95	1	3.5	0.85	31 49
17.13	3	4.6	1.09	22 07
17.58	3	8.0	1.93	15 31
17.90	1	8.6	2.08	15 12
17.11	3	9.3	2.25	23 12
18.49	1	9.6	2.32	26 08
17.58	3	9.7	2.35	20 09
16.88	3	10.1	2.43	15 15
18.23	1	11.0	2.65	24 22
18.07	1	11.2	2.71	30 46
18.07	1	12.3	2.96	25 27
16.55	6	12.4	2.99	25 14
17.96	1	13.1	3.14	33 04
18.13	1	13.3	3.21	30 22
17.23	3	13.4	3.22	16 34
16.27	6	13.8	3.32	16 52
18.49	1	14.3	3.44	20 20
17.47	3	14.5	3.49	28 39
16.56	4	15.3	3.69	33 37
17.73	3	15.8	3.81	30 04
18.13	1	16.7	4.03	25 32
18.07	1	17.2	4.14	27 07
18.13	1	17.6	4.24	26 44
17.92	2	17.7	4.27	26 53
17.58	3	18.6	4.48	30 55
18.13	1	18.9	4.55	22 01
18.01	1	20.4	4.93	17 25

36—70

Mag.		α 14^m	x	y+20′
		s	′	′ ″
17.52	3	20.7	4.98	23 23
17.90	1	21.2	5.10	15 51
17.84	2	21.5	5.18	30 30
17.51	3	21.6	5.20	20 55
16.60	5	21.9	5.28	24 12
17.96	2	22.9	5.53	25 16
17.60	3	23.1	5.58	25 19
17.81	3	23.8	5.73	19 11
18.39	1	24.2	5.82	25 25
18.18	1	24.8	5.97	24 09
18.13	1	25.2	6.08	19 58
17.78	3	25.3	6.10	25 33
18.49	1	26.1	6.31	31 19
18.39	1	26.4	6.37	28 50
13.21	14	26.7	6.42	22 34
17.49	3	26.8	6.44	22 28
17.23	3	27.2	6.56	32 15
16.08	8	28.0	6.76	26 17
18.59	1	29.6	7.13	25 28
13.04	16	29.7	7.14	29 35
18.13	1	29.8	7.17	33 54
16.40	8	29.8	7.18	30 12
17.94	2	30.1	7.26	25 43
18.18	1	31.5	7.59	16 06
15.01	11	31.6	7.62	21 31
17.82	3	32.3	7.78	20 39
17.06	3	33.4	8.04	16 41
15.03	11	33.9	8.17	21 38
17.56	3	34.4	8.31	25 30
16.22	8	35.5	8.55	34 17
18.49	1	37.4	9.00	24 45
16.25	8	38.3	9.22	30 33
16.19	8	39.1	9.43	22 31
16.03	9	39.2	9.46	19 32
17.12	3	39.4	9.49	23 15

71—105

Mag.		α 14^m	x	y+20′
		s	′	′ ″
18.13	1	39.4	9.50	19 14
9.74w	12	39.5	9.52	23 43
14.37	11	39.6	9.54	30 54
17.93	3	41.1	9.90	24 55
12.32w	13	42.4	10.23	26 53
17.02	3	42.7	10.30	25 27
18.23	1	42.9	10.35	19 52
18.54	1	43.6	10.49	31 12
17.80	3	43.9	10.57	18 22
17.88	2	44.1	10.63	17 19
17.21	3	45.9	11.06	31 40
15.87	8	46.6	11.22	18 57
16.75	5	47.4	11.39	22 35
17.51	3	48.9	11.79	20 41
18.49	1	48.9	11.80	20 50
18.23	1	49.3	11.87	19 22
18.59	1	49.6	11.94	28 48
17.81	2	50.0	12.06	27 58
14.72	12	50.4	12.14	17 19
14.56	12	50.6	12.19	23 57
16.33	8	50.6	12.19	24 58
16.36	8	51.8	12.47	22 01
17.32	3	52.3	12.59	21 13
17.84	3	52.6	12.67	26 16
16.08	8	53.5	12.91	33 12
16.01	8	53.7	12.95	31 34
17.72	2	53.8	12.96	15 49
17.60	3	54.4	13.09	21 08
17.80	2	54.8	13.20	18 36
18.64	1	56.1	13.52	27 12
18.07	1	56.3	13.57	23 42
17.96	1	58.1	13.99	16 37
17.78	1	58.1	14.01	32 52
17.17	3	58.3	14.04	31 19
16.38	8	59.3	14.30	24 11

106—140

Mag.		α 14^m	x	y+20′
		s	′	′ ″
18.18	1	59.4	14.32	28 24
17.83	3	59.4	14.33	25 27
17.26	3	61.1	14.72	18 46
18.07	1	63.1	15.21	25 24
18.01	1	65.2	15.71	26 29
16.07	6	65.3	15.73	27 47
18.13	1	66.4	16.00	34 35
16.47	6	67.0	16.15	20 11
18.59	1	67.2	16.19	20 59
18.59x	1	67.4	16.26	22 59
15.00	10	68.5	16.49	23 18
18.49	1	68.7	16.54	16 18
18.01	1	69.6	16.77	21 40
17.72	1	69.6	16.77	33 05
17.96	1	70.2	16.93	17 27
17.63	3	71.0	17.09	19 59
18.44	1	72.9	17.57	29 36
17.69	3	73.1	17.63	19 50
17.84	1	73.3	17.67	34 16
17.00	3	73.8	17.78	30 36
16.09	8	74.6	17.97	28 09
17.21	3	74.9	18.05	21 07
18.33	1	75.5	18.21	22 50
17.63	3	76.6	18.46	17 29
17.96	1	77.6	18.69	28 42
18.33	1	78.0	18.80	35 00
17.96	1	78.3	18.88	28 20
18.28?	1	78.4	18.89	31 50
18.01	1	79.8	19.23	33 36
18.44	1	79.9	19.24	15 17
18.44	1	80.4	19.38	16 06
17.55	1	80.4	19.38	15 07
16.62	1	80.6	19.42	16 49
16.77	3	81.9	19.73	25 52
17.61	3	82.0	19.74	18 23

141—142

Mag.		α 15^m	x	y+20′
		s	′	′ ″
18.44	1	22.4	19.84	16 43
17.09	1	22.6	19.91	34 15

1*s*—12*s*

Mag.		α 13^m	x	y+20′
		s	′	′
16.23	7	56	99.1	20.8
17.62	2	56	99.2	21.8
15.95	7	57	99.2	23.1
16.28	5	56	99.2	27.0
17.40	2	58	99.4	22.8
16.39	3	71	2.8	14.7
17.54	2	92	7.6	13.4
17.47	2	95	8.4	13.5
17.28	2	98	9.2	12.4
17.38	2	108	11.6	13.0
17.54	2	123	15.2	14.4
16.07	7	145	20.6	24.7

25 prec. + 71^s.8, − 6′ 57″

15^h

Area 83. Center for 1900: 15^h 9^m + 14° 50′ (20′ × 20′)

+ 14°, + 15°

1—40			
Mag.	α 8^m	x	$y+50'$
	s	′	′ ″
17.60 3	22.9	91.04	50 40
16.45 6	25.1	91.57	47 20
16.85 3	25.3	91.62	50 15
17.80 3	26.4	91.87	47 56
17.78 3	26.9	92.01	52 11
15.70 9	27.2	92.07	55 08
18.48 1	27.4	92.12	54 40
17.07 3	27.9	92.25	46 42
13.65 14	27.9	92.26	43 04
18.14 1	28.6	92.43	42 22
17.24 1	29.2	92.56	59 33
17.32 3	29.2	92.57	43 20
17.69 1	29.4	92.60	57 05
17.30 3	29.6	92.66	46 55
17.26 3	30.8	92.95	52 48
18.20 2	31.0	93.01	46 31
18.02 1	32.6	93.38	55 23
17.54 3	33.0	93.47	44 39
15.85 9	33.4	93.57	56 48
18.48 1	33.4	93.57	49 34
17.35 1	33.8	93.67	59 10
18.73 1	34.6	93.87	43 36
17.68 3	34.9	93.95	51 21
17.24 1	35.4	94.04	59 59
16.56 5	35.6	94.09	46 12
18.61x 1	35.9	94.18	52 59
15.22 9	36.2	94.25	40 54
15.37 8	36.7	94.37	49 06
18.14 1	36.8	94.41	58 21
16.68 4	38.6	94.83	54 00
18.61 1	39.3	95.00	55 14
13.91 12	40.3	95.26	50 38
17.66 2	41.4	95.48	45 58
18.38x 1	42.8	95.86	55 53
18.26x 1	43.3	95.98	57 18
18.22 2	43.9	96.11	47 30
17.64 2	44.0	96.13	44 38
17.35 3	45.4	96.48	43 18
16.02 7	45.9	96.59	45 28
18.61 1	46.2	96.68	40 45

41—80			
Mag.	α 8^m	x	$y+50'$
	s	′	′ ″
17.76 2	46.4	96.72	58 34
16.34 8	47.2	96.90	49 45
17.84 3	47.4	96.95	53 07
17.69 1	48.0	97.09	59 49
15.35 9	49.3	97.42	48 45
10.80 10	49.3	97.43	47 58
18.73 1	49.6	97.50	40 18
16.21 8	49.6	97.50	58 27
17.29 3	49.8	97.55	53 33
17.76 2	51.1	97.84	54 33
16.77 4	51.4	97.92	49 58
17.50 3	52.1	98.11	46 12
13.34 14	52.6	98.23	45 34
17.77 3	52.8	98.26	42 05
18.48 1	53.0	98.30	58 58
12.57 8	53.2	98.35	47 58
18.02 1	53.2	98.36	52 32
15.73 9	53.8	98.49	54 42
17.40 3	55.3	98.87	58 38
18.73 1	55.7	98.96	41 05
14.59 11	56.2	99.07	46 08
17.02 3	56.4	99.13	55 34
17.79 2	56.5	99.14	50 04
17.82 2	57.4	99.37	49 09
16.61 3	58.3	99.61	42 20
18.73 1	58.5	99.65	57 23
18.85 1	58.9	99.73	42 30
17.58 3	59.3	99.83	49 43
17.09 3	60.7	0.18	42 39
18.00 3	61.1	0.28	48 04
18.11 3	62.2	0.53	51 16
16.45 3	62.3	0.55	42 19
15.80 9	62.6	0.62	55 57
18.02 1	63.1	0.74	52 30
16.59 3	63.7	0.91	50 05
17.92 2	64.0	0.97	48 11
16.81 1	64.4	1.07	49 24
13.78 13	64.8	1.16	50 13
13.40 15	65.4	1.31	50 07
17.82 2	65.8	1.39	46 26

81—120			
Mag.	α 9^m	x	$y+50'$
	s	′	′ ″
17.76 2	5.9	1.43	42 04
9.25w 5	6.1	1.48	49 18
10.47 7	6.2	1.49	49 25
18.73 1	6.8	1.64	53 11
18.87 2	7.7	1.84	49 55
18.61 1	8.2	1.97	59 42
15.74 9	8.3	1.99	59 00
17.04 3	9.3	2.24	55 56
17.22 3	9.4	2.27	45 06
14.85 10	9.7	2.34	50 18
17.88 2	10.4	2.49	56 43
16.23 8	10.7	2.57	54 50
18.02 1	11.2	2.70	58 45
17.98 2	11.2	2.71	46 49
18.26 2	11.4	2.76	41 40
16.36 8	11.7	2.83	46 15
18.97 1	11.9	2.88	53 33
18.97 1	12.6	3.04	52 47
17.86 3	12.7	3.08	45 33
16.75 4	12.8	3.10	51 54
14.73 12	13.5	3.26	40 53
18.14 2	13.8	3.32	51 15
16.74 3	14.8	3.58	53 03
13.38 14	15.5	3.76	45 42
16.20 8	15.7	3.79	42 13
18.18 3	16.1	3.91	47 58
18.00 2	16.8	4.05	49 19
17.82 2	16.8	4.06	50 57
16.96 3	18.0	4.34	51 03
18.18 2	18.5	4.47	42 49
18.14 1	19.0	4.59	51 58
18.48 1	20.1	4.84	59 06
18.73 1	20.1	4.85	48 52
16.93 3	20.2	4.88	51 16
15.57 8	20.2	4.88	54 56
16.49 4	20.3	4.89	44 54
18.73 1	20.6	4.97	41 26
17.37 3	20.9	5.04	52 46
16.04 8	23.1	5.58	54 52
18.14 1	23.4	5.65	59 37

121—160			
Mag.	α 9^m	x	$y+50'$
	s	′	′ ″
18.38 1	23.6	5.71	41 19
17.64 3	24.3	5.87	48 32
18.14 1	24.4	5.90	50 28
17.65 3	24.9	6.02	45 29
17.18 3	25.2	6.08	59 07
17.92 2	25.7	6.21	52 00
14.21 12	26.1	6.31	46 33
16.62 3	26.3	6.34	54 51
18.14 1	26.7	6.41	56 35
18.97 1	27.1	6.54	49 10
17.82 2	27.7	6.70	44 39
17.67 3	28.1	6.78	58 54
17.69d 1	28.8	6.96	57 34
16.86 3	28.8	6.96	58 31
15.38 9	29.3	7.07	51 13
18.73 1	29.9	7.23	42 09
18.61 1	30.4	7.34	56 50
16.24 8	30.7	7.42	47 14
16.44 6	31.4	7.57	52 45
18.38 1	32.5	7.86	45 05
14.65 12	33.4	8.07	58 31
12.61 14	33.9	8.20	41 32
18.73 1	34.9	8.43	44 01
14.90 10	35.1	8.48	42 02
18.73 1	35.7	8.62	46 19
18.85 1	35.7	8.62	47 24
17.59 3	36.1	8.73	47 50
18.61 1	36.2	8.76	40 55
17.62 3	37.2	8.98	48 43
15.30 10	37.5	9.04	43 44
17.74 3	37.9	9.16	51 09
15.53 8	38.4	9.28	54 53
16.82 3	38.9	9.39	52 27
17.14 2	39.7	9.61	45 29
17.67 3	40.8	9.84	52 49
17.61 3	41.1	9.92	55 24
17.80 3	41.2	9.94	52 22
15.99 9	41.5	10.02	41 54
14.55 1	41.9	10.12	57 35
15.60 9	42.0	10.15	53 48

161—167			
Mag.	α 9^m	x	$y+50'$
	s	′	′ ″
18.26 1	42.5	10.28	53 28
17.32: 2	42.8	10.34	46 56
14.55 1	42.9	10.37	58 58
16.06 9	43.0	10.38	51 06
17.52 2	43.5	10.49	54 42
16.17 8	45.4	10.97	44 21
16.52 1	45.4	10.98	59 10

1s—13s			
Mag.	α 8^m	x	$y+50'$ / $y-10'$
	s	′	′
15.20 7	20	90.4	51.0
17.46 2	20	90.4	52.6
17.30 2	41	95.4	40.0
14.75 9	50	97.6	39.7
14.66 10	68	1.9	0.4
15.35 7	69	2.2	39.0
16.88 2	73	3.1	0.4
14.65 9	84	5.8	40.0
16.96 2	93	7.9	39.9
16.07 7	106	11.0	45.1
12.17 10	107	11.4	49.9
16.16 5	109	11.9	45.6
15.56 7	110	12.2	49.9

25 prec. + $70^s.2$, − 5′ 40″

16^h

Area 84. Center for 1900: 16^h 12^m + 15° 0′ (20′ × 20′)

+ 14°, + 15°

1—10			
Mag.	α 11^m	x	$y+60'$ / y
	s	′	′ ″
16.98 3	31.0	93.00	0 17
18.26 1	31.8	93.19	59 12
15.26 9	31.8	93.19	56 53
18.11 1	31.9	93.22	0 52
17.49 1	32.3	93.30	9 19
11.61 16	32.6	93.38	0 00
18.41 1	32.7	93.39	2 03
17.05 3	33.1	93.49	7 12
16.59 3	33.1	93.50	4 47
16.21 7	33.6	93.63	59 08

11—20			
Mag.	α 11^m	x	$y+60'$ / y
	s	′	′ ″
18.26 1	33.7	93.64	8 02
17.05 3	33.9	93.69	6 48
15.34 9	34.0	93.73	8 25
17.10 2	34.0	93.73	58 52
15.69 1	35.1	93.99	50 39
17.65 1	35.9	94.17	53 08
15.76 8	36.0	94.21	6 03
17.18 2	36.1	94.23	59 01
18.11 1	36.2	94.26	50 15
18.41 1	36.3	94.28	0 22

21—30			
Mag.	α 11^m	x	$y+60'$ / y
	s	′	′ ″
18.34 1	37.2	94.49	55 48
18.26 1	37.2	94.50	52 44
15.94 1	37.3	94.52	50 24
13.15 16	38.1	94.70	2 32
15.82 1	38.2	94.73	50 20
17.03 3	38.8	94.87	1 30
16.07 8	38.9	94.91	55 03
15.58 9	39.1	94.95	59 24
18.34 1	39.5	95.05	3 22
16.06 8	39.6	95.07	5 40

31—40			
Mag.	α 11^m	x	$y+60'$ / y
	s	′	′ ″
18.41 1	39.9	95.14	0 53
15.81 8	40.2	95.23	56 30
17.88 1	40.3	95.24	0 48
16.96 2	40.7	95.34	3 02
14.04 1	40.8	95.36	50 03
14.90 1	40.8	95.36	52 32
16.79 3	41.3	95.48	0 06
16.28 7	41.6	95.56	7 32
11.86 15	41.8	95.61	2 54
18.34 1	41.9	95.62	53 51

41—50			
Mag.	α 11^m	x	$y+60'$ / y
	s	′	′ ″
16.84 3	42.0	95.64	7 33
17.04 2	42.1	95.68	3 50
17.10 2	42.5	95.78	3 46
18.49 1	42.8	95.85	0 15
17.26 2	42.8	95.86	1 59
16.57 3	42.8	95.86	6 03
16.43 4	43.1	95.93	57 03
16.03 8	43.2	95.95	7 21
18.41 1	43.3	95.98	58 45
17.57 1	43.6	96.04	6 38

25 prec. + $68^s.8$, − 3′ 48″

51—110				
Mag.		α 11^{m}	x	$y+60'$ / y
		s	′	′ ″
17.88	1	44.1	96.15	5 55
17.65	1	44.3	96.21	50 02
17.26	1	44.7	96.29	58 16
16.19	7	45.3	96.45	8 24
17.88	1	45.6	96.53	56 46
18.41	1	45.7	96.54	6 34
18.41	1	45.9	96.59	5 59
15.58	9	45.9	96.60	1 58
15.34	8	46.3	96.69	8 36
14.26	13	46.3	96.71	56 42
17.30	2	46.5	96.75	0 47
17.38	2	47.4	96.96	59 26
15.61	8	47.7	97.02	7 05
18.49	1	47.9	97.08	57 34
17.96	1	48.1	97.13	0 45
16.94	3	48.2	97.14	59 56
16.18	8	48.4	97.19	5 41
17.21x	2	48.8	97.31	5 06
16.46	3	49.0	97.34	6 26
18.18	1	49.1	97.37	4 25
17.72	1	49.1	97.38	0 55
18.11	1	49.3	97.42	58 25
14.10	13	49.6	97.50	54 00
18.03	1	51.3	97.90	50 54
14.19	12	51.9	98.06	6 23
18.03	1	52.6	98.23	2 12
n		52.7	98.25	8 08
16.64	1	53.0	98.31	50 31
13.90	14	53.2	98.34	4 18
17.10	1	53.8	98.49	4 06
15.69	8	53.9	98.52	54 48
15.48	7	54.3	98.62	4 16
17.49x	1	54.4	98.65	50 22
17.65	1	54.6	98.69	5 28
16.97w	2	55	98.7	54 36
17.88	1	54.8	98.75	4 32
16.36	4	55.0	98.81	56 11
16.71	3	55.4	98.90	55 34
17.49	1	55.4	98.90	0 04
17.65x	1	55.4	98.91	3 57
17.65	1	55.5	98.93	3 00
17.72	1	55.7	98.97	1 44
17.26	1	55.7	98.97	50 02
17.72	1	56.9	99.24	1 29
17.72	1	57.0	99.27	50 51
17.29	2	57.1	99.31	55 31
18.64	1	57.1	99.31	1 42
18.26	1	57.2	99.32	0 33
16.24	8	57.2	99.33	6 26
18.64	1	57.3	99.34	3 21
16.89	3	57.3	99.34	57 15
16.69	3	57.5	99.40	7 05
16.12	6	57.6	99.43	3 40
17.72	1	57.7	99.46	52 45
17.65	1	57.9	99.51	3 08
18.11	1	58.2	99.57	2 39
18.34	1	58.4	99.62	3 01
17.65x	1	58.5	99.64	2 31
15.75	7	58.6	99.66	51 30
18.64	1	58.6	99.67	3 04

111—170				
Mag.		α 11^{m}	x	$y+60'$ / y
		s	′	′ ″
18.56	1	59.1	99.78	3 19
18.64	1	59.2	99.80	3 28
17.49	1	59.7	99.92	3 05
15.93	8	59.7	99.93	2 15
16.63	3	59.8	99.94	55 39
17.16	2	59.8	99.94	59 07
14.77	10	60.2	0.06	0 12
13.83	14	60.5	0.12	1 56
17.80	1	61.0	0.25	1 16
18.34x	1	61.0	0.25	51 42
16.95	1	61.1	0.28	2 54
18.56	1	61.3	0.33	58 09
14.69	11	61.6	0.39	53 00
16.06	8	61.9	0.44	58 18
18.03	1	62.0	0.48	4 08
14.82	10	62.3	0.55	6 16
15.89	8	62.6	0.62	1 16
16.62	3	62.7	0.65	8 33
16.88	3	62.9	0.69	9 14
12.71	16	62.9	0.69	5 12
13.42	14	63.0	0.72	55 47
16.80w	2	63	0.8	56 12
17.10	1	63.4	0.83	4 15
18.26x	1	63.7	0.91	50 32
18.64	1	63.9	0.95	59 31
18.34	1	64.0	0.97	51 51
11.98	17	64.4	1.06	54 57
16.25	7	64.5	1.08	54 16
18.64	1	64.5	1.09	5 38
15.68	8	64.7	1.12	51 50
16.04	8	65.6	1.34	52 39
17.57	1	65.9	1.43	53 29
18.71	1	66.2	1.50	3 28
17.65	1	66.3	1.52	4 34
14.50	9	66.4	1.54	6 53
18.18	1	67.0	1.70	52 32
18.11?	1	67.4	1.79	4 15
16.69	3	67.4	1.79	55 56
17.65	1	67.6	1.82	54 10
18.64	1	67.9	1.90	59 16
18.18	1	68.3	2.01	9 46
18.71	1	68.4	2.02	3 43
18.71	1	68.6	2.07	0 47
17.49	1	68.9	2.14	6 15
17.80x	1	69.4	2.28	3 48
16.78	3	69.6	2.33	53 13
17.57	1	69.7	2.34	3 35
16.77	3	69.8	2.38	6 02
18.03	1	70.0	2.42	58 24
17.88	1	70.2	2.47	58 09
17.57	1	70.5	2.52	50 44
16.31	7	70.6	2.56	1 50
17.88	1	70.7	2.57	3 27
14.65	10	70.7	2.58	58 53
8.82w	10	71.1	2.67	2 18
17.48	2	71.2	2.71	57 01
17.72	1	71.3	2.73	6 29
17.10	1	71.4	2.74	1 24
18.56	1	71.4	2.74	56 19
17.72	1	71.4	2.74	58 15

171—230				
Mag.		α 12^{m}	x	$y+60'$ / y
		s	′	′ ″
16.04	2	11.5	2.78	50 04
18.49	1	11.8	2.85	9 40
17.24	2	12.3	2.97	9 47
17.72x	1	12.4	3.00	50 35
17.08	3	12.5	3.03	56 24
16.77	5	12.5	3.03	2 39
17.02	2	12.7	3.07	4 54
15.90	6	13.0	3.16	2 33
16.58	5	13.1	3.18	0 27
16.86	3	13.2	3.19	6 39
16.17	8	13.6	3.29	53 30
18.34x	1	13.9	3.34	5 33
18.56	1	14.6	3.52	6 33
17.06	2	14.9	3.60	57 16
16.32	8	14.9	3.60	57 08
16.95	1	15.1	3.65	6 11
17.10	2	15.3	3.70	8 32
18.26	1	15.3	3.70	50 02
18.56	1	15.5	3.75	56 55
18.26	1	15.6	3.78	55 00
12.86	17	16.0	3.87	56 37
15.95	8	16.2	3.92	59 03
17.10	1	16.3	3.95	0 00
17.96	1	16.4	3.97	59 27
15.45	1	17.0	4.10	50 34
18.64	1	17.2	4.15	5 47
12.87	16	18.1	4.38	52 44
18.71	1	18.2	4.41	3 28
16.49	1	18.4	4.45	50 37
18.03	1	18.5	4.48	58 53
17.57	1	18.9	4.57	52 07
13.56	12	19.0	4.61	1 34
15.22	9	19.3	4.67	6 25
17.80	1	19.5	4.71	3 00
18.34	1	19.6	4.73	51 02
18.18	1	19.8	4.78	52 43
17.32	2	20.0	4.82	7 24
18.56	1	20.0	4.82	57 43
17.49	1	20.1	4.85	59 26
15.96	8	20.2	4.88	58 42
18.71	1	20.3	4.89	4 09
16.18	8	20.6	4.98	52 23
17.96	1	20.9	5.04	0 17
13.06	17	21.2	5.13	52 55
16.77	3	21.4	5.17	6 57
17.65	1	21.6	5.22	9 02
17.05	3	21.6	5.23	52 10
15.02	9	21.7	5.26	55 19
14.57	11	21.8	5.27	54 48
18.41	1	22.0	5.32	54 12
17.16x	2	22.2	5.36	54 07
18.56	1	22.5	5.42	59 24
18.34	1	22.6	5.44	52 07
16.96	2	22.8	5.49	7 44
15.72	7	22.8	5.49	9 21
17.16	3	23.3	5.62	55 10
18.71	1	23.3	5.62	1 44
18.49	1	23.4	5.64	7 46
15.16	2	23.6	5.70	51 14
16.47	6	24.0	5.80	1 58

231—290				
Mag.		α 12^{m}	x	$y+60'$ / y
		s	′	′ ″
17.57	1	24.7	5.98	52 53
17.20	2	24.7	5.98	54 24
11.67	14	24.9	6.02	9 03
18.11	1	25.0	6.04	1 36
16.67	3	25.1	6.06	52 18
13.21	13	26.8	6.47	1 46
18.03	1	27.2	6.58	1 55
17.49	1	27.2	6.58	52 12
17.80	1	27.3	6.60	2 08
18.03?	1	27.4	6.62	3 00
17.21	2	27.5	6.64	59 40
16.60	3	27.7	6.71	7 38
16.73	3	28.0	6.76	5 11
16.33	8	28.2	6.80	5 08
16.14	8	28.6	6.89	54 53
17.65	1	28.9	6.97	0 44
16.51	6	29.2	7.04	2 26
16.90	2	29.9	7.23	8 36
18.18	1	30.1	7.28	51 19
17.96	1	30.3	7.33	4 37
18.03x	1	30.4	7.34	5 33
15.90	8	30.5	7.38	8 37
17.80	1	30.6	7.41	52 30
17.72	1	31.5	7.59	2 26
16.09	8	31.6	7.62	0 32
13.72	12	31.7	7.66	52 49
17.26	2	31.8	7.67	57 44
18.26	1	31.9	7.71	3 07
17.36	2	32.1	7.74	1 40
14.90	9	33.2	8.02	57 27
18.49	1	33.2	8.02	1 36
17.88	1	33.7	8.14	56 41
18.26	1	33.8	8.17	50 59
18.41	1	34.0	8.23	54 11
17.02	1	34.6	8.35	56 22
17.96	1	34.7	8.38	50 05
16.23	7	35.3	8.53	55 29
17.54	2	35.5	8.57	4 48
18.34	1	35.6	8.59	53 35
17.06	2	35.8	8.65	57 45
17.36	2	35.8	8.66	59 58
17.80	1	36.2	8.76	53 08
15.87	8	36.5	8.82	54 45
17.01	2	36.5	8.83	56 27
16.21	8	36.7	8.87	6 11
15.58	8	36.7	8.88	6 03
17.80	1	36.8	8.90	9 18
16.13	8	37.4	9.02	55 43
17.80	1	37.6	9.08	55 01
16.48	3	38.3	9.24	58 22
15.78	8	38.6	9.32	55 51
16.89	3	39.0	9.43	57 49
16.95	3	39.3	9.49	55 01
16.98	2	39.3	9.49	7 20
18.49	1	39.3	9.49	4 44
15.73	2	39.8	9.63	51 07
17.29	2	39.9	9.64	57 44
17.24	2	40.0	9.66	59 49
16.12	4	40.3	9.72	57 22
16.64	1	40.4	9.76	52 56

291—344				
Mag.		α 12^{m}	x	$y+60'$ / y
		s	′	′ ″
18.18	1	40.8	9.84	50 32
16.38	4	40.8	9.86	59 42
17.24	2	41.0	9.90	0 49
18.49	1	41.4	10.01	58 52
17.65	1	41.5	10.03	6 29
18.41	1	42.2	10.19	7 29
17.24	2	42.2	10.20	3 07
14.66	11	42.3	10.23	3 28
18.41	1	42.6	10.31	5 13
18.26x	1	42.8	10.34	53 28
17.41	1	43.3	10.44	0 20
16.04	8	43.3	10.45	8 38
18.11	1	43.6	10.52	4 42
15.73	8	43.7	10.54	9 14
18.18	1	44.5	10.74	7 05
16.64	1	44.5	10.75	54 05
15.68	8	44.6	10.78	57 02
18.34	1	44.9	10.84	59 12
18.41x	1	45.3	10.94	4 38
18.18	1	45.3	10.94	58 42
17.57	1	45.3	10.96	5 38
17.33	1	45.9	11.08	3 20
17.02	1	46.1	11.12	53 41
14.43	2	46.2	11.16	54 04
17.01	2	46.3	11.18	2 34
18.41	1	46.5	11.23	6 54
18.11	1	46.6	11.26	0 44
15.96	8	46.8	11.31	56 53
18.34	1	47.2	11.40	5 44
17.02x	1	47.2	11.40	51 21
14.32	12	47.5	11.47	2 00
18.03	1	47.6	11.51	57 18
17.10	1	47.8	11.54	0 16
17.02	1	47.8	11.56	4 11
18.03x	1	48.1	11.62	7 31
14.07	14	48.4	11.70	59 41
17.72	1	48.4	11.70	3 30
14.73	10	48.9	11.80	56 30
14.82	10	49.6	11.97	56 55
16.64	1	50.7	12.24	55 06
18.41	1	50.7	12.25	3 48
17.07	3	50.7	12.26	58 52
15.94	8	50.8	12.28	2 47
15.43	8	50.9	12.30	3 51
17.57x	1	50.9	12.31	9 17
17.65	1	51.1	12.35	51 00
18.11	1	51.1	12.36	51 14
16.91	2	51.3	12.40	5 02
18.26	1	52.1	12.57	55 33
14.35	12	52.2	12.60	0 52
16.27	4	52.4	12.65	2 28
17.33	1	53.1	12.83	8 13
17.88	1	53.2	12.85	57 27
16.49	3	53.6	12.95	6 11

25 prec. + 68ˢ8, − 3′ 46″

Area 84. Supplementary Stars

1s—10s				11s—20s				21s—25s			
Mag.	α 11^{m}	x	$y+60'$ / y	Mag.	α 11^{m}	x	y	Mag.	α 12^{m}	x	y
	s	′	′		s	′	′		s	′	′
15.38 7	26	91.9	4.1	16.04 2	55	98.8	11.6	13.60 11	32	7.6	10.9
16.85 2	27	92.0	59.9	16.57 2	56	99.0	12.2	16.06 6	32	7.7	10.4
16.92 2	27	92.0	1.8	16.20 2	65	1.3	10.4	15.68 6	36	8.8	12.0
15.94 6	30	92.6	57.9	16.79 2	72	3.0	13.9	16.69 2	56	13.6	1.7
14.20 10	30	92.7	3.2	13.99 12	74	3.3	12.9	16.38 2	58	14.0	3.4
16.92 2	30	92.7	6.2	16.62 2	76	3.9	11.7				
16.42 2	31	92.9	58.6	14.96 7	79	4.6	12.6				
16.63 2	48	97.0	10.6	16.11 6	81	5.0	11.3				
14.22 11	48	97.1	11.5	16.25 2	81	5.1	13.0				
16.72 2	54	98.4	12.8	15.87 6	81	5.2	12.0				

25 prec. + 68^{s}.8, − 3′ 48″

Area 85. Center for 1900: 17^{h} 10^{m} + 15° 0′ (15′ × 15′)

1—40				41—80				81—120				121—160				161—200			
Mag.	α 10^{m}	x	$y+60'$ / y	Mag.	α 10^{m}	x	$y+60'$ / y	Mag.	α 10^{m}	x	$y+60'$ / y	Mag.	α 10^{m}	x	$y+60'$ / y	Mag.	α 11^{m}	x	$y+60'$ / y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.82 3	22.4	5.41	56 59	17.98d 1	31.0	7.48	6 02	13.32 16	38.3	9.26	56 08	18.11 3	48.2	11.66	58 41	16.49 11	1.0	14.72	59 04
18.14 3	22.5	5.43	0 28	17.14 5	31.3	7.54	4 20	17.48 5	38.4	9.28	57 35	16.99 5	48.5	11.72	9 48	16.53 11	1.1	14.76	58 55
17.95 3	22.7	5.47	1 24	17.85 3	31.3	7.55	56 59	14.09 14	38.6	9.32	8 51	15.25 13	48.6	11.74	0 47	17.15 7	1.5	14.85	2 58
16.94 7	23.0	5.55	2 33	17.46 4	31.6	7.63	6 29	17.33 5	38.9	9.40	56 44	18.07 3	48.7	11.76	59 21	17.83 4	1.6	14.88	1 58
17.02 7	23.3	5.62	4 28	16.97 6	31.7	7.64	7 24	17.43 6	38.9	9.41	1 58	15.97 11	49.2	11.88	7 21	17.50 4	1.7	14.89	57 47
16.38 11	23.5	5.67	4 14	13.37 18	31.7	7.65	57 15	17.48 4	39.1	9.44	5 39	17.18 7	50.0	12.08	3 13	16.84 10	1.9	14.96	7 02
16.86 8	23.6	5.69	2 41	17.22 5	31.8	7.68	58 20	16.58 10	39.4	9.52	6 27	18.05 3	50.7	12.26	8 48	16.62 10	2.6	15.12	7 29
17.76d 1	23.6	5.70	9 30	11.39 10	31.8	7.68	0 57	17.02 7	39.5	9.54	9 38	15.15 12	50.8	12.27	59 40	17.03 5	3.7	15.38	57 28
17.40 4	23.6	5.70	9 11	17.31 4	32.3	7.80	8 34	14.18 14	39.5	9.54	59 31	12.08 15	51.1	12.35	6 35	17.58 3	3.9	15.42	2 59
17.96 2	24.2	5.85	58 40	17.42 4	32.3	7.81	8 30	15.92 10	39.8	9.63	5 59	16.72 8	51.3	12.40	9 31	16.29 11	3.9	15.43	4 18
16.80 8	24.3	5.87	9 34	18.08 2	32.4	7.82	5 38	16.81 10	40.0	9.67	6 07	16.92 8	51.3	12.41	55 52	16.58 8	4.1	15.48	8 30
16.17 11	24.4	5.90	55 36	17.66 3	32.5	7.84	9 00	17.78 4	40.4	9.75	3 41	17.98d 1	51.5	12.44	5 41	17.77 3	4.2	15.49	3 39
17.02 5	24.6	5.94	7 50	17.45 4	32.9	7.95	1 12	16.16 11	40.7	9.82	2 51	14.36 14	51.5	12.45	6 40	13.32 17	4.2	15.49	4 59
16.86 9	24.6	5.95	59 37	17.93 3	33.0	7.98	2 10	17.17 7	40.7	9.82	59 11	17.40 4	52.1	12.57	9 45	16.88 8	4.2	15.51	7 06
16.66 7	24.6	5.96	56 00	17.52 4	33.3	8.04	8 46	17.08 7	41.0	9.90	59 33	17.47d 1	52.9	12.77	6 06	16.88 10	4.4	15.56	2 44
17.92 2	25.4	6.13	7 49	16.85 8	33.4	8.07	7 56	16.93 8	41.0	9.91	4 53	9.37w 7	53.3	12.88	1 30	18.13 3	4.6	15.60	1 55
17.81 3	25.5	6.14	7 18	17.71 4	33.6	8.12	57 02	17.76 4	41.2	9.94	56 15	16.80 10	53.4	12.89	5 14	16.20 10	4.8	15.64	5 42
17.65 3	25.7	6.19	6 15	14.75 11	33.6	8.12	3 30	17.08 7	41.4	10.01	8 10	15.95 11	53.4	12.90	6 15	17.57 4	4.9	15.67	2 14
16.85 8	25.9	6.25	57 34	17.67 3	33.7	8.14	7 38	18.13 1	41.8	10.09	2 28	17.11 8	53.4	12.90	2 26	17.88 3	5.0	15.69	3 44
17.74 3	26.0	6.27	55 32	17.91d 1	33.7	8.15	9 10	17.76d 1	42.0	10.15	6 20	15.15 13	53.4	12.91	7 43	16.96 10	5.0	15.71	4 05
17.18 4	26.1	6.29	2 13	17.97 3	33.7	8.15	6 01	16.02 11	42.2	10.19	58 20	18.21 3	53.5	12.93	1 00	17.65 4	5.1	15.73	6 38
16.73 8	26.2	6.33	5 10	16.93 8	34.1	8.24	8 07	17.40 1	42.4	10.24	8 02	16.74 10	53.6	12.95	0 25	17.34 7	5.3	15.77	5 48
16.18 10	26.5	6.40	5 50	17.04 8	34.2	8.26	0 23	14.97 14	42.7	10.33	5 41	13.07 18	54.0	13.05	58 55	18.09 2	5.6	15.84	9 01
15.66 13	26.7	6.45	1 47	17.10 6	34.3	8.29	56 54	17.82 4	42.9	10.36	2 10	17.54 5	54.4	13.14	6 01	17.91 3	6.9	16.14	8 22
16.52 11	27.7	6.70	59 43	17.12 5	34.6	8.36	55 41	18.01 3	43.1	10.39	6 25	16.90 8	54.4	13.16	7 42	17.91d 1	7.0	16.18	9 00
17.85 3	28.0	6.77	8 34	15.89 12	35.0	8.46	3 27	17.10 7	43.4	10.48	5 19	17.83 3	55.1	13.30	7 11	17.32 5	7.3	16.25	7 44
17.12 7	28.6	6.89	0 38	18.00 3	35.3	8.53	4 14	14.96 13	43.5	10.49	2 31	17.65 4	55.7	13.46	6 56	16.99 8	7.3	16.25	56 39
17.83 3	28.8	6.94	5 41	14.23 13	35.4	8.56	56 53	14.60 12	44.3	10.70	8 01	16.89 8	56.6	13.67	6 49	17.05 7	7.6	16.33	58 34
17.76 3	28.8	6.96	58 05	14.94 13	35.7	8.63	4 52	17.56 4	44.5	10.75	57 31	17.99 3	57.1	13.81	58 06	17.18d 1	7.6	16.33	8 52
17.44 3	28.9	6.98	5 04	17.11 5	36.2	8.75	9 23	17.48 4	44.6	10.78	0 52	16.44 10	58.0	14.00	59 20	17.83 3	7.8	16.38	9 14
15.98 11	29.2	7.05	55 02	18.06 1	36.6	8.84	57 24	17.75 4	45.4	10.96	4 40	16.92 8	58.0	14.00	9 29	16.02 11	7.9	16.40	3 11
16.77 8	29.3	7.07	56 37	16.47 10	36.6	8.85	5 03	15.38 13	45.4	10.98	3 13	17.68 3	58.6	14.16	56 57	15.61 13	8.3	16.51	8 31
16.83 8	29.4	7.11	3 58	16.09 11	36.7	8.88	1 21	16.46 10	45.8	11.07	58 17	17.52 4	58.7	14.18	55 31	17.62 4	8.4	16.52	9 37
17.15 5	29.6	7.16	5 51	17.22 4	36.8	8.90	9 56	14.52 13	46.0	11.10	8 58	18.13 1	58.9	14.23	3 32	15.63 13	8.7	16.60	8 17
17.72 4	29.7	7.18	4 50	16.96 5	37.3	8.99	4 29	16.72 8	46.1	11.13	55 49	17.55 4	59.2	14.29	57 36	16.78 9	9.2	16.72	59 12
17.89 3	30.2	7.30	3 19	17.18d 1	37.4	9.03	6 16	16.96 10	46.4	11.20	2 05	15.63 12	59.7	14.43	3 14	17.57 4	9.3	16.75	55 51
17.06 7	30.5	7.38	1 55	17.47d 1	37.6	9.07	6 17	17.39 4	46.8	11.30	59 54	17.23 7	59.8	14.45	2 00	17.49 5	9.3	16.75	59 26
16.57 10	30.5	7.38	0 52	16.71 8	37.8	9.12	57 15	17.66 3	47.5	11.47	8 40	16.58 11	59.8	14.45	0 16	16.39 10	9.4	16.77	7 04
17.83 3	30.7	7.42	1 25	16.57 10	38.2	9.22	5 35	15.94 12	48.0	11.61	2 08	16.78 7	60.4	14.59	55 30	16.32 9	10.0	16.91	58 36
17.95 3	30.7	7.43	0 04	12.83 14	38.3	9.24	0 40	17.97 3	48.2	11.64	9 43	18.05 3	60.4	14.61	57 02	17.73 3	10.7	17.08	8 26

25 prec. + 68^{s}.0, − 1′ 47″

201—220					221—240					241—260					261—262				
Mag.		α 11$^{\rm m}$	x	$y+60'$ / y	Mag.		α 11$^{\rm m}$	x	$y+60'$ / y	Mag.		α 11$^{\rm m}$	x	$y+60'$ / y	Mag.		α 11$^{\rm m}$	x	$y+60'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
16.05	11	10.8	17.11	58 31	17.62	4	14.9	18.10	55 34	17.61	4	19.7	19.26	58 19	17.21	5	24.2	20.34	55 34
17.95	3	10.9	17.12	55 28	18.05	3	14.9	18.11	0 45	17.55	3	20.1	19.35	8 55	16.72	10	24.2	20.35	55 56
15.58	13	11.1	17.17	6 54	17.16	5	15.3	18.19	57 50	17.89	3	20.2	19.38	3 05					
15.16	13	11.3	17.23	55 07	17.86	3	15.4	18.23	5 37	17.18	5	20.3	19.39	2 26					
17.77	4	11.4	17.24	3 27	16.68	8	15.8	18.30	55 56	17.02	6	20.5	19.46	4 48					
15.76	12	11.8	17.35	3 06	17.43	5	15.8	18.31	7 19	16.65	10	20.8	19.52	1 48					
17.92	3	12.0	17.41	0 58	15.99	11	16.0	18.35	59 16	17.02	5	21.1	19.59	8 29					
18.03	2	12.0	17.41	2 17	14.19	14	16.8	18.54	1 27	15.85	11	21.1	19.60	0 10					
15.98	11	12.7	17.56	59 01	15.82	12	17.3	18.67	8 41	16.76	10	21.2	19.63	0 28					
15.66	12	12.9	17.60	2 43	17.88	3	17.4	18.70	7 10	17.07	5	21.4	19.66	8 32					
16.61	10	13.1	17.65	1 18	15.31	13	17.4	18.71	2 20	17.63	2	21.4	19.67	57 50					
17.20	7	13.2	17.68	4 00	16.90	9	17.7	18.78	55 57	17.45	4	22.2	19.86	5 07					
15.97	11	13.2	17.68	55 38	17.70	4	18.3	18.92	0 30	17.92	3	23.0	20.06	57 37					
16.35	10	13.2	17.69	56 02	16.41	11	18.3	18.93	59 10	17.90	3	23.0	20.06	1 41					
16.80	10	13.5	17.75	3 30	17.55	3	18.5	18.96	7 44	17.34	3	23.2	20.09	57 53					
17.97	3	13.7	17.80	6 01	17.53	4	18.7	19.00	0 16	17.08	5	23.2	20.10	3 58					
17.32	5	13.9	17.86	9 53	17.41	4	19.3	19.14	7 47	17.60	4	23.5	20.17	6 52					
16.69	10	14.1	17.90	5 58	18.17	3	19.5	19.19	59 11	16.54	8	23.6	20.21	6 17					
17.60	4	14.6	18.03	5 54	16.69	10	19.6	19.23	56 03	16.26	10	23.7	20.22	7 02					
14.31	14	14.7	18.06	7 18	17.32	5	19.7	19.25	6 16	14.82	12	23.9	20.27	2 21					

25 prec. + 68$^{\rm s}$.0, − 1′ 46″

17$^{\rm h}$ Area 85. Supplementary Stars + 14°, + 15°

1s—30s					31s—60s					61s—90s					91s—120s					121s—150s				
Mag.		α 10$^{\rm m}$	x	$y+60'$ / y	Mag.		α 10$^{\rm m}$	x	$y+60'$ / y	Mag.		α 10$^{\rm m}$	x	$y+60'$ / y	Mag.		α 10$^{\rm m}$	x	$y+60'$ / y	Mag.		α 10$^{\rm m}$	x	$y+60'$ / y
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
17.72	2	7	1.6	4.9	18.00	2	17	4.0	4.3	15.77	10	28	6.8	52.7	15.14	11	43	10.4	54.6	17.50	3	54	13.1	50.6
14.44	11	9	2.2	57.7	17.42	3	18	4.2	55.0	17.53	3	28	6.8	54.0	14.51	11	44	10.7	51.4	17.78	2	54	13.2	51.2
16.59	7	9	2.2	0.9	17.88	2	18	4.2	57.0	15.99	10	29	7.0	52.9	17.76	2	46	11.0	52.0	18.16	2	55	13.2	10.4
17.78	2	9	2.2	1.4	15.79	10	17	4.2	59.8	16.19	10	31	7.4	51.5	13.06	14	46	11.0	11.7	14.33	10	56	13.4	50.9
17.11	3	9	2.2	2.2	18.02	2	18	4.2	3.2	17.61	3	31	7.4	53.3	12.67	11	46	11.2	12.0	17.68	2	55	13.4	12.0
17.92	2	10	2.3	4.7	17.88	2	17	4.2	4.1	17.44	3	31	7.4	53.4	15.72	9	47	11.3	11.7	17.84	2	57	13.7	10.8
17.42	3	10	2.4	0.9	14.81	11	18	4.3	1.8	17.58	3	32	7.8	53.6	13.25	15	47	11.4	54.7	16.38	8	57	13.8	50.8
17.91	2	10	2.4	3.4	14.37	12	18	4.4	56.2	16.44	9	34	8.2	51.1	16.92	5	48	11.6	53.8	16.27	10	57	13.8	51.2
14.76	11	11	2.6	58.0	17.27	4	18	4.4	58.1	15.19	11	34	8.2	54.0	16.80	6	49	11.8	53.0	17.32	3	58	14.0	11.8
14.79	10	11	2.6	3.0	17.45	3	18	4.4	4.6	17.37	3	34	8.3	54.4	16.84	7	49	11.8	54.7	17.13	4	58	14.0	12.0
17.80	2	11	2.6	5.8	16.59	7	20	4.8	57.0	17.24	4	35	8.4	11.0	17.64	2	49	11.8	11.4	17.91	2	59	14.2	10.2
13.21	15	11	2.7	2.2	16.86	6	20	4.8	59.0	16.46	7	35	8.5	11.8	17.74	2	49	11.8	12.4	17.81	2	59	14.2	11.1
17.53	2	12	2.9	0.4	16.42	8	20	4.8	1.6	17.66	2	36	8.7	54.8	18.08	2	49	11.9	51.5	17.22	4	59	14.3	54.4
17.01	5	13	3.0	57.6	15.47	11	20	4.8	5.2	17.70	2	37	8.8	11.5	17.67	2	49	12.0	51.0	10.27	7	60	14.6	50.5
15.60	10	14	3.4	56.3	16.88	5	20	4.9	55.6	15.45	10	37	9.0	51.2	16.64	9	50	12.0	53.6	17.68	2	62	14.9	54.2
16.12	10	14	3.4	0.4	17.90	2	20	5.0	58.5	18.07	2	37	9.0	53.4	14.89	11	49	12.0	54.4	16.69	5	62	15.0	11.5
17.26	3	14	3.4	5.0	15.93	10	21	5.0	0.4	17.91	2	38	9.2	51.4	17.25	4	50	12.2	52.0	17.04	4	62	15.0	12.1
15.73	10	14	3.4	5.1	17.84	2	21	5.0	6.8	17.80	2	38	9.2	52.2	16.81	7	50	12.2	53.5	17.39	4	63	15.1	52.0
17.70	2	14	3.4	6.8	17.86	2	21	5.1	0.2	17.77	2	38	9.2	53.0	16.90	6	51	12.3	54.0	17.21	4	63	15.1	10.6
16.52	9	14	3.5	0.4	16.26	10	21	5.1	2.2	16.81	7	38	9.2	54.4	16.51	9	51	12.4	50.6	15.90	10	63	15.2	54.4
17.92	2	14	3.5	2.8	16.32	9	21	5.1	3.0	17.94	2	38	9.2	55.0	15.46	10	51	12.4	52.2	16.74	5	64	15.4	12.4
17.68	2	14	3.5	5.8	17.33	3	21	5.1	5.8	16.92	5	38	9.2	10.6	17.76	2	52	12.5	52.4	17.86	2	66	15.8	52.2
18.04	2	15	3.7	57.8	16.72	7	22	5.2	56.4	17.23	3	39	9.4	11.8	17.48	3	52	12.5	12.2	17.86	2	67	16.2	52.5
17.56	3	15	3.7	59.6	16.98	5	22	5.2	6.4	16.64	6	39	9.4	12.0	15.55	11	53	12.8	51.4	13.89	12	68	16.4	54.6
16.84	4	16	3.8	55.4	17.57	2	22	5.3	56.4	17.76	2	39	9.5	11.6	16.69	7	53	12.8	51.5	17.93	2	69	16.8	53.9
16.77	7	16	3.8	1.3	17.98	2	23	5.4	56.5	17.59	3	40	9.6	52.6	17.20	4	53	12.8	10.8	16.50	7	70	16.9	12.0
16.96	4	16	3.9	59.9	17.84	2	24	5.9	54.0	13.50	11	40	9.7	11.4	15.73	10	53	12.8	11.6	11.91	11	71	17.0	50.9
16.64	7	16	4.0	56.0	17.71	2	26	6.2	54.5	17.90	2	41	10.0	54.1	17.84	2	54	13.0	50.6	15.87	10	71	17.2	54.5
16.59	9	17	4.0	0.7	16.88	6	26	6.3	53.4	13.25	15	42	10.2	10.6	16.71	6	54	13.0	53.0	16.94	7	75	18.0	53.4
16.96	6	17	4.0	1.6	18.02	2	28	6.8	52.2	16.63	7	42	10.2	11.8	17.94	2	54	13.0	53.6	17.72	2	76	18.4	53.8

25 prec. + 68$^{\rm s}$.0, − 1′ 47″

17^h Area 85. Supplementary Stars + 14°, + 15°

151s—170s					171s—190s					191s—210s					211s—212s				
Mag.		α 11^m	x	$y+60'$ / y	Mag.		α 11^m	x	$y+60'$ / y	Mag.		α 11^m	x	$y+60'$ / y	Mag.		α 11^m	x	y
		s	′	′			s	′	′			s	′	′			s	′	′
16.67	7	17	18.7	51.8	16.03	10	28	21.3	59.1	13.61	13	34	22.7	6.6	17.68	2	40	24.1	0.8
17.18	4	18	18.9	10.2	17.35	4	28	21.3	6.2	17.86	2	35	22.9	2.8	16.36	9	40	24.1	3.9
15.84	10	20	19.2	52.9	15.85	10	29	21.4	1.9	17.35	3	35	23.0	56.7					
17.25	3	19	19.2	54.8	15.84	10	29	21.4	9.0	16.72	7	35	23.0	2.4					
17.40	3	22	19.8	54.4	16.11	10	29	21.5	54.3	16.87	6	35	23.0	5.8					
16.65	7	22	19.9	54.6	13.95	11	30	21.6	2.2	17.80	2	36	23.2	4.6					
17.60	2	23	20.0	10.4	17.63	3	29	21.6	3.2	14.98	12	37	23.4	59.4					
15.89	10	25	20.4	55.0	16.63	6	30	21.6	8.6	14.52	11	37	23.4	1.6					
17.44	3	24	20.4	56.2	17.20	4	30	21.8	3.1	17.42	3	37	23.4	5.5					
17.88	2	25	20.4	4.4	15.45	11	30	21.8	8.4	17.00	4	38	23.6	5.6					
16.50	8	26	20.7	58.9	17.40	4	31	21.9	4.2	15.04	11	38	23.7	57.9					
17.04	4	26	20.7	2.8	17.30	4	31	22.0	4.4	17.47	3	38	23.7	1.1					
17.60	3	26	20.7	7.0	16.86	7	32	22.1	3.9	17.39	3	39	23.8	2.4					
17.54	3	26	20.7	8.6	15.52	11	32	22.2	59.7	16.11	10	39	23.8	3.2					
16.87	5	26	20.8	0.6	15.72	10	32	22.2	3.6	16.98	5	39	23.9	59.8					
17.74	2	26	20.8	1.4	13.36	15	32	22.2	3.8	12.38	12	40	24.0	58.6					
17.72	2	27	20.9	53.3	16.69	9	32	22.3	6.2	17.92	2	40	24.0	2.0					
17.88	2	27	21.0	3.3	15.69	10	33	22.4	5.0	17.82	2	40	24.0	2.8					
17.62	2	27	21.1	7.2	17.86	2	33	22.4	5.8	17.49	3	39	24.0	4.4					
18.05	2	28	21.2	58.3	17.75	2	34	22.7	0.4	17.34	3	40	24.1	0.6					

25 prec. + $68^{s}.0$, − 1′ 46″

18^h Area 86. Center for 1900: 18^h 11^m + 15° 0′ (15′ × 15′) + 14°, + 15°

1—30					31—60					61—90					91—120					121—150				
Mag.		α 11^m	x	$y+60'$ / y	Mag.		α 11^m	x	$y+60'$ / y	Mag.		α 11^m	x	$y+60'$ / y	Mag.		α 11^m	x	$y+60'$ / y	Mag.		α 11^m	x	$y+60'$ / y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
16.90	7	14.2	3.42	4 26	16.95	8	17.5	4.23	57 21	15.01	12	20.6	4.97	3 36	16.89	5	24.0	5.80	9 53	16.55	8	27.8	6.73	6 35
15.32	12	14.2	3.42	57 50	17.21	5	17.6	4.25	1 36	18.33	3	20.8	5.03	4 51	17.53	3	24.0	5.80	9 48	14.38	14	27.9	6.75	6 45
17.00	5	14.4	3.48	4 44	16.05	9	17.6	4.25	0 15	17.67	3	20.8	5.03	1 21	16.38	8	24.1	5.82	6 10	18.01	3	28.0	6.77	57 24
16.98	5	14.5	3.51	2 16	16.89	3	17.7	4.28	5 05	16.70	7	21.2	5.12	7 19	17.30	3	24.4	5.91	58 37	18.49	3	28.4	6.86	0 25
15.79	11	14.7	3.54	56 34	16.50	8	17.7	4.28	9 53	15.95	8	21.2	5.14	55 27	18.36	2	24.6	5.94	55 03	16.74	7	28.4	6.86	3 11
17.26	5	14.7	3.56	56 08	17.76	3	17.8	4.30	1 49	17.72	3	21.3	5.15	2 03	18.04	3	24.6	5.95	6 41	16.83	7	28.5	6.87	5 35
16.64	8	15.0	3.63	1 01	16.80	7	17.9	4.33	6 19	12.77	15	21.3	5.16	5 11	17.21	3	24.6	5.95	9 49	16.85	7	28.8	6.94	4 14
14.19	13	15.3	3.69	59 59	16.37	8	18.0	4.36	57 08	16.26	8	21.5	5.20	2 31	18.22	3	24.6	5.96	57 21	16.93	8	28.9	6.97	6 11
16.17	10	15.3	3.70	58 33	16.81	8	18.0	4.36	56 45	17.28	5	21.7	5.25	7 39	16.98	7	25.0	6.05	57 14	18.41	3	28.9	6.98	56 02
17.44:	1	15.3	3.70	55 25	13.23	15	18.2	4.39	9 04	18.30	3	21.9	5.29	59 06	16.32	8	25.1	6.06	55 49	16.25	8	29.0	6.99	57 55
18.12	3	15.7	3.79	59 03	18.03w	2	18	4.4	7 18	18.17	3	22.0	5.31	56 06	18.41	3	25.4	6.12	4 10	18.49	3	29.0	7.00	4 12
13.89	15	15.8	3.83	3 05	17.61	3	18.3	4.43	2 29	18.27	3	22.1	5.35	0 46	17.07	7	25.4	6.12	0 20	16.89	8	29.2	7.05	58 23
18.20	2	15.9	3.85	55 44	18.12	3	18.4	4.44	59 32	17.08	7	22.5	5.43	59 13	18.28	3	25.5	6.15	59 32	18.21	3	29.2	7.06	9 07
18.10	3	16.0	3.87	55 08	18.18	3	18.4	4.46	58 11	17.95	3	22.6	5.45	3 26	17.51	3	25.7	6.20	55 50	17.49	5	29.6	7.15	0 39
14.94	12	16.0	3.87	9 47	17.14	5	18.4	4.46	8 06	18.15	3	22.6	5.46	59 28	17.57	3	25.7	6.20	0 59	14.90	12	29.7	7.18	5 32
17.47	3	16.1	3.89	8 03	17.96	3	18.7	4.53	58 00	18.04	3	22.7	5.48	55 57	15.06	11	25.9	6.26	55 10	16.76	7	29.7	7.18	8 27
18.28	3	16.4	3.96	5 50	17.76	3	18.8	4.54	5 54	16.88	8	22.8	5.49	58 12	18.29	3	26.0	6.28	57 31	17.18	5	30.0	7.26	57 55
13.59	14	16.5	3.99	7 03	17.57	3	18.8	4.54	2 22	17.36d	1	22.8	5.49	55 00	18.20	3	26.1	6.29	7 39	18.39	3	30.1	7.27	3 50
17.27	3	16.5	3.99	3 22	17.30	5	18.8	4.55	0 48	18.42	1	22.8	5.49	2 30	16.86	7	26.3	6.36	3 21	18.07	3	30.1	7.27	59 03
16.81	8	16.6	4.01	55 07	17.36	3	19.3	4.67	3 18	18.26	3	23.0	5.54	0 16	14.63	11	26.4	6.38	58 37	16.95	8	30.1	7.27	0 20
17.84	3	16.7	4.03	1 23	18.54	2	19.4	4.69	3 27	18.33	3	23.0	5.56	59 40	18.41	3	26.4	6.38	5 40	15.36	11	30.1	7.28	3 05
17.08	3	16.7	4.03	4 34	13.61	17	19.5	4.71	56 35	14.18	13	23.2	5.59	56 58	16.90	8	26.7	6.45	57 59	17.85	3	30.1	7.28	58 36
18.04w	2	17	4.1	6 36	18.33	1	19.8	4.78	5 06	16.76	8	23.3	5.62	0 00	16.76	8	26.7	6.46	0 29	14.83	12	30.2	7.29	8 10
14.71	13	17.0	4.11	0 45	18.34	3	19.9	4.79	2 21	18.26	2	23.3	5.63	9 05	16.16	8	26.7	6.46	6 19	18.12	2	30.2	7.30	6 26
17.11	3	17.2	4.15	4 53	17.79	3	20.1	4.84	1 09	18.16	2	23.4	5.64	8 12	16.53	8	26.9	6.51	55 03	16.65	7	30.2	7.30	3 13
17.18	3	17.2	4.15	2 09	17.59	3	20.1	4.86	58 11	15.59	9	23.6	5.69	56 28	17.94	3	27.1	6.56	4 40	17.52	5	30.2	7.30	1 00
16.80	8	17.2	4.15	8 59	16.70	8	20.3	4.89	55 44	18.41	3	23.6	5.70	1 54	18.10	3	27.3	6.59	7 10	14.17	14	30.3	7.33	56 27
17.08	7	17.2	4.16	1 49	17.27	3	20.3	4.89	2 17	17.75	3	23.7	5.72	2 04	17.67	3	27.3	6.60	59 12	18.58	3	30.4	7.34	1 17
17.51	3	17.4	4.20	9 23	17.97	3	20.4	4.93	8 44	17.92	3	23.8	5.74	58 51	17.17	4	27.6	6.67	57 37	17.28	6	30.6	7.40	0 02
17.32	4	17.5	4.23	8 24	16.64	8	20.5	4.94	0 39	17.75	3	23.8	5.75	0 40	16.83	6	27.6	6.68	9 02	15.14	12	30.6	7.41	4 33

25 prec. + $67^{s}.8$, + 0′ 25″

151—210				211—270				271—330				331—390				391—450			
Mag.	α 11^{m}	x	$y+60'$ y	Mag.	α 11^{m}	x	$y+60'$ y	Mag.	α 11^{m}	x	$y+60'$ y	Mag.	α 11^{m}	x	$y+60'$ y	Mag.	α 11^{m}	x	$y+60'$ y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
15.55 10	30.6	7.41	58 25	18.00 3	37.1	8.96	56 17	15.90 9	43.7	10.55	55 02	17.45 7	48.2	11.66	2 29	18.60 1	53.7	12.98	0 15
15.59 10	30.7	7.43	59 11	17.85 3	37.2	8.99	58 19	18.26 3	43.8	10.58	59 10	17.88 3	48.3	11.67	59 20	17.66 5	53.8	13.01	0 47
18.20 3	30.9	7.46	0 33	15.71 10	37.2	8.99	6 52	18.27 3	43.9	10.60	7 29	18.80 2	48.4	11.69	1 58	17.17 7	54.0	13.04	55 33
18.14 3	31.1	7.49	55 09	15.88 8	37.4	9.02	8 05	18.82 2	44.0	10.63	6 00	17.75 3	48.6	11.75	0 36	16.45 8	54.3	13.13	7 31
17.77 3	31.2	7.52	4 20	13.89 17	37.6	9.08	4 29	16.55 8	44.1	10.65	3 07	18.12 3	48.6	11.75	7 15	18.14 3	54.4	13.16	9 03
14.29 14	31.3	7.54	3 50	18.50 3	37.7	9.10	59 35	17.18 5	44.2	10.68	5 46	16.76 8	48.7	11.77	57 59	15.63 9	54.5	13.18	3 37
17.24 5	31.3	7.55	5 04	18.56 3	38.3	9.24	2 18	18.40 2	44.3	10.70	8 06	17.91w 2	49	11.8	1 36	15.72 11	54.7	13.22	56 49
17.35 5	31.5	7.59	3 21	17.34 8	38.3	9.25	0 12	16.91 8	44.5	10.74	57 40	14.85 13	48.9	11.80	1 42	16.83 8	54.7	13.23	57 05
17.71 3	31.5	7.59	9 33	16.66 8	38.4	9.27	6 00	13.29 16	44.6	10.78	3 47	16.87 8	49.0	11.82	57 01	17.75 3	54.8	13.25	56 57
17.76 3	31.6	7.62	7 52	18.01 3	38.4	9.27	55 51	10.49w 9	44.7	10.80	2 18	17.16 7	49.0	11.82	4 52	17.30 7	54.8	13.25	2 58
17.54 5	31.7	7.65	0 49	16.39 8	38.4	9.27	58 06	18.40 2	44.7	10.80	8 15	13.93 14	49.0	11.83	1 13	14.63 13	54.9	13.26	8 05
17.29 5	31.7	7.66	2 49	16.12 8	38.5	9.30	59 00	17.58 4	45.1	10.90	56 47	18.39 3	49.1	11.85	56 31	17.11 8	55.1	13.29	2 51
18.42 1	31.8	7.68	58 34	18.36 3	38.6	9.32	56 59	15.03 12	45.2	10.92	0 52	12.36 15	49.2	11.88	59 20	17.95 3	55.1	13.31	57 53
17.86 3	32.0	7.73	8 41	17.49 5	38.6	9.33	1 25	18.20 3	45.2	10.93	6 38	18.62 3	49.3	11.90	0 26	14.54 13	55.1	13.31	56 08
15.42 11	32.2	7.77	8 15	17.65 3	38.7	9.34	4 16	16.51 8	45.3	10.96	59 47	18.31 3	49.4	11.93	59 01	17.10 8	55.2	13.32	7 05
15.15 12	32.2	7.77	1 30	16.94 8	39.1	9.45	5 43	17.91 3	45.3	10.96	0 37	17.27 5	49.5	11.96	1 27	17.46 5	55.2	13.32	4 13
17.10 5	32.5	7.85	9 45	18.12 3	39.4	9.52	55 29	16.94 8	45.4	10.98	3 10	16.92 7	49.6	11.97	9 29	17.86 3	55.2	13.33	3 17
16.09 8	32.5	7.86	1 25	18.77 3	39.4	9.53	0 59	17.93w 2	46	11.0	7 24	17.45 4	49.7	11.99	4 56	18.11 3	55.3	13.34	55 14
17.35 3	32.6	7.88	6 50	17.25 5	39.5	9.55	8 43	16.64 8	45.6	11.03	55 35	17.52 5	49.7	12.00	0 42	18.43 3	55.3	13.36	2 24
18.35 2	32.7	7.89	2 45	16.97 7	39.5	9.55	59 25	17.73 3	45.7	11.04	9 21	15.79 9	49.7	12.00	4 44	17.65 3	55.3	13.36	56 27
18.37 3	32.7	7.90	57 45	17.21 8	39.7	9.60	1 48	18.09 3	45.8	11.06	56 12	18.12 3	49.7	12.01	8 03	18.51 1	55.4	13.37	59 34
17.19 7	32.9	7.94	5 15	16.90 6	39.9	9.64	57 05	18.12 3	45.8	11.06	4 46	17.99 3	50.1	12.09	4 31	17.43 5	55.4	13.37	7 39
18.50 3	32.9	7.96	5 30	17.03 7	39.9	9.64	59 01	16.30 8	45.8	11.06	0 40	17.78 3	50.1	12.10	0 46	17.51 3	55.5	13.39	7 58
17.02 6	32.9	7.96	55 50	16.83 7	39.9	9.64	59 39	13.32 17	45.9	11.09	9 55	17.13 8	50.3	12.16	2 49	18.23 3	55.8	13.47	6 26
18.51 1	32.9	7.96	2 08	17.38 5	39.9	9.65	6 45	17.59 4	46.1	11.12	2 11	16.56 7	50.3	12.16	56 44	16.86 7	55.8	13.47	1 34
17.95 3	33.0	7.97	3 30	18.29 3	40.4	9.76	8 47	16.51 8	46.2	11.14	7 46	17.21 7	50.7	12.24	56 09	14.39 13	56.1	13.56	55 38
16.18 8	33.0	7.98	0 22	17.77 3	40.4	9.76	55 49	18.02 3	46.2	11.14	5 46	17.37 5	50.7	12.26	56 48	15.46 11	56.2	13.58	0 27
17.81 3	33.1	7.99	4 31	17.20 7	40.5	9.77	3 55	17.97w 2	46	11.2	7 06	17.53 3	51.0	12.32	0 45	18.53 3	56.4	13.63	0 44
17.65 3	33.3	8.03	9 44	16.14 8	40.6	9.79	56 49	17.43 6	46.4	11.20	5 37	17.08 7	51.1	12.36	9 39	18.01w 2	57	13.7	9 18
13.93 14	33.5	8.10	7 06	18.16 3	40.6	9.79	6 47	17.86 3	46.4	11.21	1 55	18.36 3	51.1	12.36	56 28	16.90 8	56.7	13.71	58 03
17.36 5	33.6	8.13	0 02	15.90 8	40.6	9.80	3 38	18.69 1	46.5	11.23	2 56	17.19 7	51.2	12.38	59 00	16.76 8	56.8	13.73	7 28
17.18 7	33.7	8.16	5 43	13.83 14	40.6	9.80	4 36	18.17 3	46.6	11.24	57 40	17.29 6	51.3	12.40	59 49	17.13 8	57.0	13.77	2 39
14.61 13	33.8	8.18	6 56	17.48 5	40.8	9.86	58 32	18.33 3	46.6	11.25	5 59	18.60 1	51.4	12.41	0 13	17.73 3	57.0	13.77	56 48
18.21 3	33.9	8.20	3 30	18.18 3	41.0	9.91	58 19	18.10 3	46.6	11.25	9 35	18.45 3	51.6	12.46	6 22	15.80 10	57.0	13.78	8 02
17.83 3	34.2	8.27	5 18	18.95 3	41.1	9.92	4 00	17.50 5	46.6	11.26	8 14	18.56 3	51.6	12.47	6 19	18.26 3	57.4	13.87	57 46
18.51 1	34.2	8.28	1 29	17.56 3	41.4	9.99	6 30	18.61 3	46.8	11.29	0 28	15.57 11	51.7	12.48	3 44	16.39 8	57.4	13.87	5 12
14.69 12	34.3	8.29	2 09	16.76 8	41.5	10.02	56 38	17.46 5	46.8	11.30	55 19	18.21 3	51.7	12.49	3 06	18.02 2	57.6	13.91	6 57
17.62 5	34.3	8.29	5 30	18.46 2	41.6	10.06	2 34	17.07 8	46.8	11.31	6 41	15.75 10	51.8	12.51	2 04	17.26 4	57.7	13.94	6 41
17.75 3	34.5	8.33	9 26	18.05 3	41.7	10.07	6 40	16.62 8	47.0	11.34	56 58	17.49 6	52.0	12.54	2 55	17.32 6	57.7	13.94	2 36
16.46 8	34.6	8.35	7 18	18.69 1	41.8	10.10	2 51	17.74 3	47.0	11.34	1 18	17.72 3	52.0	12.56	2 03	16.69 8	57.8	13.96	8 07
17.52 3	34.7	8.38	1 14	16.99 7	41.9	10.13	7 54	17.64 5	47.1	11.37	1 25	17.74 3	52.1	12.58	5 54	17.19 7	58.0	14.01	5 17
17.67 3	35.0	8.46	56 35	18.06 3	42.0	10.14	56 29	13.58 17	47.2	11.39	2 45	16.76 8	52.2	12.59	9 21	13.14 17	58.1	14.02	0 59
17.45 6	35.5	8.58	0 33	17.75 3	42.0	10.15	6 18	17.57 5	47.2	11.39	3 24	18.00 2	52.2	12.60	58 40	18.12 3	58.1	14.03	8 05
18.60 2	35.7	8.63	1 26	17.31 5	42.3	10.22	5 12	17.24 8	47.2	11.40	4 31	18.60 1	52.4	12.65	59 46	17.71 3	58.2	14.04	56 33
18.12 3	35.7	8.63	4 42	15.24 12	42.4	10.24	57 00	18.60 1	47.3	11.42	2 58	18.51 2	52.6	12.70	57 31	18.60 3	58.2	14.05	2 52
16.70 7	35.7	8.63	8 10	18.35 3	42.4	10.25	5 10	17.99 3	47.3	11.42	9 49	17.49 5	52.6	12.70	58 19	17.94 2	58.2	14.06	8 09
18.06 3	35.8	8.65	56 42	17.71 3	42.5	10.27	9 10	18.50 2	47.4	11.44	58 00	18.41 2	52.6	12.71	57 02	15.12 12	58.6	14.15	8 55
17.68 3	35.8	8.66	1 06	18.69 1	42.5	10.28	2 15	17.72 3	47.4	11.45	1 29	17.57 4	52.6	12.71	5 39	18.02 3	58.7	14.18	0 54
17.30 7	35.8	8.66	5 34	16.39 6	42.6	10.29	3 47	18.65 3	47.6	11.49	0 17	18.14 3	52.8	12.74	6 21	18.03w 2	59	14.2	6 12
17.38 5	36.0	8.69	58 03	15.20 12	42.6	10.31	58 55	18.62 3	47.8	11.54	0 24	16.59 7	52.8	12.75	9 51	18.28 2	58.9	14.23	6 58
17.74 3	36.0	8.71	58 07	16.86 8	42.8	10.34	55 11	18.06 3	47.8	11.54	8 04	17.37 5	52.9	12.77	57 11	16.98 5	59.0	14.24	6 35
17.55 3	36.2	8.76	6 30	16.89 8	42.8	10.34	58 09	17.65 5	47.8	11.54	6 59	18.01 3	53.0	12.80	5 15	18.78 2	59.0	14.25	58 04
17.21 6	36.3	8.77	59 16	18.94 3	42.8	10.35	0 46	18.12 3	47.8	11.56	59 20	17.90 3	53.1	12.82	58 43	18.13 3	59.2	14.29	2 50
16.73 8	36.4	8.80	57 48	18.00 3	43.0	10.38	2 53	13.66 15	47.9	11.57	1 29	16.41 6	53.2	12.86	56 10	16.62 8	59.2	14.31	59 56
18.67 3	36.4	8.81	1 46	18.18 3	43.1	10.40	9 09	16.36d 1	47.9	11.57	2 43	14.59 14	53.3	12.88	1 04	18.43 3	59.5	14.35	1 09
16.23 8	36.5	8.83	4 37	17.96 3	43.1	10.41	6 10	17.70 4	48.0	11.59	2 01	18.48 2	53.4	12.90	58 00	16.68 8	59.6	14.39	7 32
17.22 7	36.7	8.88	58 13	17.07 8	43.2	10.42	0 55	18.80 3	48.1	11.63	1 50	17.73 3	53.5	12.92	3 16	16.94 6	59.7	14.43	6 58
18.55 3	36.9	8.93	1 41	18.16 3	43.3	10.46	2 40	17.70 3	48.2	11.64	6 30	12.47 15	53.5	12.92	58 42	16.58 7	59.8	14.45	7 35
17.36 8	36.9	8.93	1 19	18.33 2	43.5	10.51	9 53	16.33 8	48.2	11.65	59 35	18.48 3	53.6	12.96	59 41	15.17 12	59.8	14.46	7 45
18.30 3	37.1	8.96	56 59	17.94 3	43.7	10.54	7 45	17.05 8	48.2	11.65	2 41	17.20 8	53.6	12.96	3 03	17.30 5	59.8	14.46	59 25

25 prec. + 67^{s}.8, + 0′ 26″

451—490			
Mag.	α 11^m	x	y+60′ / y
	s	′	′ ″
18.25 3	59.9	14.48	55 58
18.33 1	60.0	14.51	55 40
17.51 3	60.0	14.51	3 59
16.10 8	60.0	14.51	5 28
17.34 5	60.2	14.54	8 10
16.75 8	60.2	14.55	7 36
18.33 1	60.2	14.56	55 09
17.31 6	60.3	14.57	7 06
17.73 3	60.4	14.59	0 03
16.42 8	60.5	14.62	2 42
17.53 3	60.8	14.68	8 35
17.69 3	61.0	14.73	1 01
17.51 3	61.1	14.74	55 17
18.08 3	61.1	14.75	7 11
18.43 3	61.1	14.75	56 39
17.14 8	61.1	14.75	3 22
18.18 3	61.1	14.76	3 46
17.29 7	61.1	14.76	2 51
18.22 3	61.3	14.79	56 00
18.31 3	61.3	14.81	8 27
18.18 2	61.4	14.83	5 47
17.42 6	61.7	14.89	0 47
15.56 11	61.9	14.95	2 46
17.73 3	61.9	14.95	55 21
18.01 3	62.0	14.97	3 56
15.25 12	62.0	14.97	55 32
15.71 8	62.1	14.99	59 40
16.50 8	62.1	14.99	0 40
18.27 3	62.1	14.99	4 52
17.92 3	62.1	15.00	6 42
17.32 5	62.3	15.04	56 23
17.03 6	62.3	15.04	0 51
18.33 1	62.3	15.05	7 01
15.95 8	62.3	15.06	9 57
18.35 3	62.4	15.08	2 00
17.97 3	62.6	15.12	9 37
18.31 2	62.6	15.13	8 05
15.17 11	62.7	15.14	3 30
18.16 1	62.7	15.16	55 07
18.07 1	62.7	15.16	57 15

491—530			
Mag.	α 12^m	x	y+60′ / y
	s	′	′ ″
16.36 8	2.9	15.19	1 14
17.87 3	3.1	15.24	3 22
18.33 1	3.1	15.24	7 11
14.55 14	3.2	15.28	0 18
18.37 3	3.3	15.29	55 44
16.71 8	3.3	15.31	58 39
18.13 3	3.3	15.31	1 09
16.63 8	3.4	15.33	5 10
17.09 6	3.5	15.34	57 27
17.43 5	3.6	15.37	57 55
14.43 14	3.6	15.37	1 38
18.25 3	3.8	15.41	3 19
17.77 2	3.9	15.43	4 07
17.42 5	4.0	15.44	7 15
18.41 3	4.0	15.46	2 59
18.25 2	4.1	15.48	3 53
18.38 3	4.2	15.50	5 49
17.53 5	4.2	15.50	59 03
14.32 13	4.4	15.55	55 47
18.33 1	4.4	15.55	57 55
17.05 8	4.4	15.55	8 17
18.32 3	4.5	15.57	8 09
16.98 6	4.8	15.65	55 10
18.41 3	4.8	15.66	1 45
18.37 3	4.9	15.69	1 03
17.36 5	5.0	15.70	8 40
17.36 5	5.0	15.71	58 00
15.01 12	5.2	15.75	55 40
17.78 3	5.2	15.75	57 43
17.07 8	5.2	15.76	1 15
15.05 12	5.2	15.76	6 55
17.29 5	5.5	15.83	8 50
18.54 2	5.6	15.84	0 38
18.25 1	5.6	15.86	8 41
18.21 3	5.8	15.89	7 21
18.36 3	6.0	15.94	59 25
18.32 3	6.0	15.96	4 20
16.90 8	6.2	15.99	2 22
18.04 3	6.2	15.99	59 44
18.29 3	6.3	16.02	7 04

531—570			
Mag.	α 12^m	x	y+60′ / y
	s	′	′ ″
16.98 8	6.4	16.04	1 23
17.90 3	6.4	16.05	3 52
16.09 8	6.6	16.09	0 09
18.46 3	6.6	16.09	1 39
17.47 3	6.7	16.10	4 15
17.77 3	6.9	16.16	0 40
15.33 10	7.0	16.17	59 38
17.81 3	7.1	16.19	4 21
17.64 3	7.3	16.25	7 26
16.78 6	7.4	16.27	55 10
16.50 8	7.7	16.35	56 19
17.69 3	7.7	16.35	6 24
18.33 1	7.9	16.40	0 19
18.38 3	8.1	16.44	57 24
18.32 3	8.3	16.50	0 28
16.61 8	8.4	16.53	4 08
18.02 3	8.4	16.53	8 21
17.91 3	8.6	16.58	57 30
17.78 3	8.7	16.60	59 58
15.06 12	8.9	16.65	57 47
17.90 1	8.9	16.65	6 53
16.96 8	8.9	16.65	6 29
16.12 9	9.2	16.73	7 48
13.94 14	9.4	16.76	58 09
17.60 3	9.4	16.77	4 04
17.49 3	9.5	16.79	55 42
17.76 3	9.6	16.80	5 33
16.68 8	9.8	16.86	56 20
18.29 3	9.9	16.88	58 04
15.16 12	10.0	16.90	4 32
18.01 3	10.0	16.91	4 19
17.99 3	10.2	16.96	8 33
15.40 12	10.4	17.00	57 01
16.91 6	10.4	17.00	4 05
18.09 3	10.5	17.03	6 46
16.73 6	10.5	17.03	4 07
15.41 12	10.6	17.04	1 48
17.52 5	10.6	17.05	58 41
17.05 6	10.8	17.09	9 59
17.89 5	10.8	17.11	56 15

571—610			
Mag.	α 12^m	x	y+60′ / y
	s	′	′ ″
16.91 8	10.9	17.13	6 54
17.32 5	11.0	17.16	56 34
17.60 2	11.2	17.20	1 11
17.05 7	11.3	17.22	5 54
13.79 13	11.3	17.23	9 23
18.14 3	11.4	17.25	59 30
16.76 8	11.6	17.29	7 37
17.90w 2	12	17.3	3 12
15.09 12	11.6	17.30	58 15
18.38 3	11.7	17.32	4 26
17.79 3	11.9	17.37	1 51
17.46 3	11.9	17.38	57 34
16.95 3	12.0	17.39	56 59
14.92 13	12.0	17.40	55 54
16.83 8	12.0	17.41	4 41
17.98 3	12.0	17.41	1 42
17.58 3	12.1	17.43	2 41
14.52 12	12.2	17.44	55 32
16.63 8	12.2	17.44	9 50
17.88 3	12.3	17.47	59 31
18.36 2	12.4	17.48	7 18
15.68 10	12.4	17.49	5 42
17.70 3	12.5	17.50	56 39
18.08 3	12.5	17.50	3 45
17.79 3	12.6	17.52	57 42
17.76 3	12.6	17.53	0 18
14.61 13	12.7	17.55	6 13
18.16 3	12.7	17.56	3 14
17.03 6	12.7	17.56	1 45
17.95 3	12.8	17.57	9 19
13.66 16	12.8	17.57	55 33
16.68 8	12.9	17.61	56 22
14.29 14	13.0	17.62	1 08
18.16 3	13.0	17.62	8 37
18.28 3	13.1	17.65	5 28
18.10 3	13.1	17.65	57 31
17.86 3	13.1	17.65	56 13
17.63 3	13.3	17.69	59 15
17.72 3	13.3	17.71	58 53
13.53 16	13.4	17.72	7 18

611—635			
Mag.	α 12^m	x	y+60′ / y
	s	′	′ ″
16.79 8	13.6	17.78	7 58
17.51 3	13.6	17.78	6 33
16.83 8	13.7	17.81	58 12
17.55 3	13.8	17.83	59 58
17.03 5	13.9	17.86	9 40
18.18 3	14.0	17.88	1 09
16.73 8	14.1	17.90	4 44
18.22 3	14.4	17.97	4 24
18.16 3	14.5	17.99	1 43
18.33 1	14.8	18.07	5 03
15.07 12	14.9	18.09	6 08
16.82 8	14.9	18.09	58 46
16.00 8	14.9	18.11	0 58
17.72 3	15.0	18.12	4 51
18.22 3	15.1	18.15	4 33
17.13 4	15.1	18.16	55 41
17.34 3	15.3	18.21	7 46
18.25 3	15.5	18.24	55 16
18.30 3	15.5	18.24	2 35
17.00 8	15.5	18.25	5 48
18.26 3	15.7	18.28	59 25
15.25 12	15.7	18.29	3 54
15.80 8	16.0	18.34	7 58
17.09 3	16.0	18.34	0 59
16.40 8	16.1	18.38	0 57

25 prec. + 67ˢ.8, + 0′ 27″

18^h Area 86. Supplementary Stars + 14°, + 15°

1s—10s			
Mag.	α 10^m	x	y+60′ / y
	s	′	′
17.79 2	55	98.8	59.0
15.23 10	57	99.2	3.3
16.57 7	58	99.4	3.5
16.78 5	58	99.6	0.0
15.84 8	58	99.6	0.6
17.69 2	59	99.7	59.2
17.59 2	59	99.7	4.9
13.32 12	59	99.8	0.9
15.47 9	60	99.9	0.2
17.90 2	60	0.0	59.2

11s—20s			
Mag.	α 11^m	x	y+60′ / y
	s	′	′
13.78 13	0	0.0	0.6
16.61 6	0	0.0	3.0
16.86 3	1	0.2	0.4
18.34 2	1	0.2	1.6
16.44 7	1	0.3	59.7
16.80 5	1	0.3	1.6
17.21 2	1	0.3	6.9
14.81 10	1	0.4	57.5
15.88 6	2	0.4	0.4
16.58 6	2	0.4	2.6

21s—30s			
Mag.	α 11^m	x	y+60′ / y
	s	′	′
17.63 2	2	0.4	3.0
17.49 2	2	0.4	4.8
16.66 7	2	0.5	0.1
17.76 2	2	0.5	5.4
15.71 8	2	0.6	57.8
16.01 8	3	0.6	5.2
16.54 6	2	0.6	7.2
15.98 8	3	0.7	0.3
17.64 2	4	0.8	58.3
16.73 7	3	0.8	58.8

31s—40s			
Mag.	α 11^m	x	y+60′ / y
	s	′	′
14.23 11	3	0.8	0.4
16.93 5	4	0.9	57.6
16.44 7	4	0.9	58.7
18.13 2	4	0.9	5.6
17.71 2	4	0.9	5.7
17.56 2	4	0.9	6.6
16.63 6	4	0.9	6.7
18.09 2	4	1.0	56.4
16.65 7	5	1.1	57.8
18.13 2	5	1.1	3.5

41s—50s			
Mag.	α 11^m	x	y+60′ / y
	s	′	′
17.18 4	5	1.2	56.6
16.91 4	5	1.2	58.2
15.25 10	5	1.2	6.8
16.97 5	5	1.3	57.8
17.47 2	5	1.3	5.5
16.97 2	6	1.4	55.9
17.17 4	6	1.4	56.4
18.05 2	6	1.4	57.0
15.92 8	6	1.4	57.2
17.60 2	6	1.4	58.9

25 prec. + 67ˢ.8, + 0′ 25″

51s—110s				
Mag.		α 11^m	x	$y+60'$ / y
		s	′	′
14.55	11	6	1.4	59.2
15.29	10	6	1.4	5.4
16.33	7	6	1.5	56.6
15.84	9	7	1.6	56.1
15.94	7	7	1.6	58.5
17.49	2	7	1.6	59.4
18.11	2	7	1.6	59.6
18.46	2	7	1.6	4.0
18.17	2	7	1.6	8.2
17.84	2	7	1.7	57.4
18.09	2	7	1.7	57.6
16.67	7	7	1.7	59.1
17.95	2	7	1.7	0.1
17.79	2	7	1.7	0.9
16.82	6	7	1.7	8.4
18.05	2	7	1.8	55.4
17.95	2	7	1.8	55.6
17.62	2	7	1.8	0.6
18.00	2	7	1.8	4.0
17.13	2	8	1.8	6.8
16.77	5	8	1.9	57.2
17.31	2	8	1.9	6.8
16.89	7	8	2.0	1.6
16.59	7	9	2.1	59.0
17.23	3	9	2.1	0.1
16.74	5	9	2.1	0.2
13.16	13	9	2.1	0.8
18.15	2	9	2.1	2.6
18.33	2	9	2.1	6.1
17.67	2	9	2.2	54.8
17.09	3	9	2.2	56.8
14.78	11	9	2.2	57.0
17.57	2	9	2.2	0.4
18.11	2	9	2.2	1.8
16.92	4	9	2.2	9.9
18.11	2	10	2.3	59.7
17.91	2	10	2.3	0.4
17.67	2	10	2.3	3.6
18.22	2	10	2.3	5.1
17.03	2	10	2.3	6.2
17.74	2	10	2.4	58.6
18.22	2	10	2.4	3.6
17.37	2	10	2.4	8.0
17.33	2	10	2.4	10.0
18.14	2	10	2.5	0.4
17.31	2	10	2.5	2.4
17.73	2	11	2.6	0.4
18.05	2	11	2.6	3.4
18.47	2	11	2.6	4.1
16.25	8	11	2.7	4.0
17.57	2	11	2.7	5.4
17.16	2	11	2.7	6.3
18.39	2	12	2.8	59.3
18.41	2	12	2.8	4.9
17.47	2	12	2.8	10.2
16.84	7	12	2.9	55.2
18.21	2	12	2.9	56.5
16.32	8	12	2.9	59.1
16.70	6	12	2.9	1.3
13.56	14	12	2.9	1.4

111s—170s				
Mag.		α 11^m	x	$y+60'$ / y
		s	′	′
18.10	2	12	2.9	10.0
18.29	2	12	3.0	55.4
18.23	2	12	3.0	55.6
13.83	12	12	3.0	3.6
16.69	4	12	3.0	7.8
17.80	2	12	3.0	9.0
17.37	2	12	3.0	9.2
16.65	5	13	3.1	55.4
18.11	2	13	3.1	4.2
16.52	8	13	3.1	6.2
18.39	2	13	3.1	6.8
16.83	6	13	3.2	6.6
17.64	2	13	3.2	8.3
17.68	2	13	3.2	9.2
16.71	6	14	3.3	55.0
17.83	2	14	3.3	57.3
17.14	4	14	3.3	2.7
13.35	16	14	3.3	3.4
15.43	8	14	3.3	5.0
16.69	7	14	3.3	10.4
17.91	2	14	3.4	8.0
17.90	2	17	4.1	54.1
16.68	7	17	4.2	10.2
16.55	7	18	4.4	54.4
11.08	8	19	4.6	54.6
17.47	2	19	4.6	54.8
16.78	7	19	4.7	10.8
18.29	2	19	4.7	11.6
17.60	2	20	4.8	11.6
17.63	2	20	5.0	53.9
18.07	2	20	5.0	54.1
18.25	2	20	5.0	54.2
16.59	7	21	5.0	54.3
17.51	2	21	5.2	53.9
16.19	7	22	5.2	54.1
18.09	2	22	5.2	54.9
17.91	2	22	5.2	10.5
15.74	9	22	5.2	10.6
18.21	2	22	5.4	52.8
17.53	2	22	5.4	11.6
17.76	2	23	5.6	53.6
17.73	2	23	5.6	10.6
17.83	2	23	5.6	11.2
16.62	7	24	5.7	11.2
18.24	2	24	5.8	53.4
17.33	2	24	5.8	11.4
18.15	2	25	6.0	52.8
16.56	5	25	6.0	11.4
16.71	7	25	6.1	52.6
18.22	2	25	6.2	53.0
17.84	2	25	6.2	55.0
18.15	2	26	6.2	12.4
16.29	7	26	6.2	12.6
16.57	7	26	6.3	54.1
18.10:	2	26	6.4	52.4
16.84	6	27	6.4	11.4
18.20	2	27	6.6	52.2
18.17	2	27	6.6	53.2
18.36	2	27	6.6	54.1
18.34	2	28	6.7	54.8

171s—230s				
Mag.		α 11^m	x	$y+60'$ / y
		s	′	′
15.24	9	28	6.8	52.7
17.05	4	28	6.8	53.4
17.90	2	28	6.8	12.4
18.09	2	29	6.9	53.6
13.67	12	29	6.9	54.8
18.15	2	29	7.0	53.0
16.57	7	29	7.0	54.4
18.11	2	30	7.2	51.4
16.21	7	30	7.2	51.8
18.10	2	30	7.2	53.8
16.93	5	30	7.2	54.8
16.63	7	30	7.2	11.0
17.11	2	30	7.2	11.4
17.57	2	30	7.3	10.9
17.15	4	31	7.4	51.8
17.27	4	30	7.4	51.9
17.17	4	31	7.4	52.4
16.95	6	31	7.4	53.0
18.17	2	31	7.4	53.4
18.46	2	31	7.4	11.2
17.80	2	31	7.6	52.9
16.59	6	31	7.6	10.4
15.79	7	31	7.6	13.1
17.75	2	32	7.7	11.4
18.09	2	32	7.8	53.4
17.79	2	33	7.9	54.8
15.64	8	33	8.0	54.2
18.33	2	33	8.0	54.8
16.37	7	34	8.2	10.3
16.69	7	35	8.4	13.0
17.81	2	36	8.6	53.2
18.06	2	36	8.6	53.9
16.59	7	35	8.6	54.0
18.19	2	36	8.6	54.1
17.22	4	36	8.7	52.4
16.68	7	36	8.7	10.8
17.89	2	36	8.8	51.5
17.1[illegible]	4	37	8.8	11.6
17.84	2	37	8.8	12.6
17.69	2	37	8.9	12.6
17.81	2	37	9.0	51.2
18.20	2	37	9.0	51.8
18.22	2	37	9.0	52.3
17.57	2	37	9.0	52.6
17.75	2	37	9.0	53.7
15.00	10	37	9.0	10.6
17.09	2	37	9.0	11.0
12.15	14	37	9.0	11.8
18.25	2	38	9.1	52.4
17.43	2	38	9.2	52.2
18.21	2	38	9.2	52.9
17.99	2	38	9.2	55.0
18.00	2	39	9.4	53.0
16.80	7	39	9.4	53.5
16.16	7	39	9.4	10.2
18.22	2	40	9.6	51.4
17.15	2	40	9.6	52.8
18.57	2	40	9.6	10.1
16.12	7	40	9.6	10.8
16.54	7	40	9.6	11.6

231s—290s				
Mag.		α 11^m	x	$y+60'$ / y
		s	′	′
15.48	9	40	9.6	13.2
18.29	2	40	9.7	10.4
17.84	2	41	9.8	54.2
16.81	7	40	9.8	54.8
16.95	6	41	9.8	10.1
16.90	6	41	9.8	11.0
15.52	9	41	9.8	11.3
17.78	2	41	9.8	13.4
18.35	2	41	9.9	54.2
18.41	2	41	9.9	11.6
15.93	7	41	10.0	53.1
17.68	2	41	10.0	53.4
14.67	11	41	10.0	13.1
16.92	6	42	10.2	54.6
13.22	15	42	10.2	54.9
17.23	2	42	10.2	13.0
15.94	8	43	10.3	12.1
18.27	2	43	10.4	52.8
18.54	2	43	10.4	53.4
17.93	2	44	10.6	50.8
16.66	5	44	10.6	51.3
17.09	4	44	10.6	53.6
17.15	4	44	10.6	54.7
9.49	7	44	10.6	12.6
18.21	2	44	10.7	52.5
16.63	7	45	10.8	51.8
17.79	2	45	10.8	54.0
16.79	7	45	10.8	12.2
16.79	6	45	10.9	51.7
17.89	2	45	10.9	51.8
15.70	7	45	10.9	52.6
17.83	2	45	10.9	54.4
16.17	5	46	11.0	52.6
17.41	2	46	11.0	52.8
18.54	2	45	11.0	54.0
18.05	2	46	11.1	10.4
17.67	2	46	11.2	54.6
14.73	11	46	11.2	10.3
18.31	2	47	11.4	13.3
17.53	2	47	11.4	13.6
17.68	2	48	11.6	53.8
17.85	2	48	11.6	10.4
15.69	9	49	11.8	54.5
17.27	4	49	11.8	11.2
17.14	4	49	11.8	12.4
17.81	2	50	12.0	13.2
15.88	8	50	12.2	53.8
18.27	2	50	12.2	54.8
13.99	12	51	12.2	11.8
16.64	7	51	12.2	11.9
16.54	7	51	12.4	51.8
17.36	2	51	12.4	52.2
12.49	14	51	12.4	52.4
16.59	7	51	12.4	10.4
17.18	3	51	12.4	11.8
16.86	7	51	12.4	12.4
12.98	12	52	12.6	51.6
16.88	5	52	12.6	54.1
16.40	7	53	12.8	52.6
17.87	2	53	12.8	54.4

291s—350s				
Mag.		α 11^m	x	$y+60'$ / y
		s	′	′
17.71	2	53	12.9	12.7
17.22	4	54	13.0	52.0
17.59	2	54	13.0	53.2
15.32	10	54	13.0	53.8
16.28	7	54	13.0	13.0
17.03	4	55	13.2	54.5
17.25	4	55	13.2	10.3
16.94	7	55	13.4	11.0
17.02	4	56	13.6	52.4
18.04	2	56	13.6	53.3
17.77	2	56	13.6	53.6
17.58	2	56	13.6	54.6
18.31	2	56	13.6	10.8
16.10	7	57	13.6	12.4
17.12	4	57	13.7	52.0
18.45	2	57	13.8	10.4
18.08	2	58	13.9	53.7
15.85	6	58	14.0	53.6
17.42	2	58	14.0	12.6
17.25	2	58	14.1	12.5
17.79	2	59	14.2	11.3
16.58	7	59	14.3	54.8
16.34	7	60	14.4	11.0
18.17	2	60	14.4	11.6
17.59	2	59	14.4	12.7
18.10	2	60	14.5	11.3
16.41	7	60	14.6	51.8
16.19	7	60	14.6	10.8
17.53	2	61	14.6	13.0
16.70	7	61	14.7	53.4
16.90	7	61	14.7	54.8
14.27	10	61	14.8	53.6
17.43	2	61	14.8	12.0
17.85	2	63	15.2	10.5
17.80	2	63	15.2	11.8
12.45	14	64	15.4	11.0
14.88	10	64	15.4	12.6
16.71	6	65	15.6	52.4
16.78	7	65	15.6	12.5
18.07	2	65	15.8	54.9
16.42	7	66	16.0	10.4
16.63	7	67	16.2	53.6
17.37	2	67	16.2	54.8
16.36	7	67	16.2	11.6
17.23	2	67	16.2	12.2
18.17	2	67	16.3	53.0
17.53	2	68	16.3	11.2
11.68	13	68	16.4	54.0
17.22	4	69	16.6	54.4
17.77	2	69	16.6	10.0
13.66	13	69	16.8	53.6
17.29	2	70	16.9	53.6
16.69	7	70	17.0	53.4
16.68	7	71	17.1	54.8
17.69	2	71	17.2	53.4
18.17	2	71	17.2	54.2
17.09	4	72	17.3	54.8
17.73	2	72	17.4	11.4
17.87	2	73	17.6	54.0
16.36	7	74	17.9	54.9

25 prec. + $67^{s}.8$, + 0′ 26″

18^{h} Area 86. Supplementary Stars + 14°, + 15°

351*s*—370*s*				
Mag.		α 12^{m}	x	$y+60'$ / y
		s	′	′
16.44	7	15	18.1	10.4
17.63	2	15	18.2	54.3
17.99	2	16	18.4	54.2
18.43	2	16	18.4	55.8
13.83	12	16	18.4	10.0
17.01	4	16	18.4	10.4
18.19	2	17	18.5	3.5
16.68	7	17	18.5	3.6
18.01	2	17	18.6	56.8
18.03	2	17	18.6	57.6
15.61	9	17	18.6	2.2
13.32	15	17	18.7	1.0
17.43	2	18	18.8	57.0
17.73	2	18	18.8	57.4
17.74	2	18	18.8	0.0
17.49	2	18	18.9	56.3
13.26	16	18	18.9	0.4
18.21	2	18	18.9	1.6
17.10	5	18	18.9	2.8
14.98	10	18	18.9	4.8

371*s*—390*s*				
Mag.		α 12^{m}	x	$y+60'$ / y
		s	′	′
16.99	4	18	18.9	9.4
16.89	5	18	19.0	54.4
18.17	2	19	19.0	2.6
17.19	4	19	19.0	6.9
14.57	12	19	19.1	58.6
17.73	2	19	19.1	59.8
17.77	2	19	19.1	0.8
15.09	10	19	19.1	1.8
18.15	2	20	19.2	0.5
17.23	2	20	19.2	0.6
18.01	2	20	19.2	4.8
17.55	2	20	19.2	5.4
14.47	11	20	19.2	7.0
18.03	2	20	19.2	7.8
18.05	2	20	19.3	57.8
17.57	2	20	19.3	2.6
17.67	2	20	19.3	4.4
18.03	2	20	19.4	57.1
14.34	12	21	19.5	2.4
15.93	7	21	19.5	4.0

391*s*—410*s*				
Mag.		α 12^{m}	x	$y+60'$ / y
		s	′	′
18.17	2	21	19.6	57.4
16.23	7	21	19.6	0.0
16.16	5	21	19.6	1.8
17.75	2	21	19.6	5.0
18.09	2	22	19.7	6.6
16.51	7	22	19.8	58.2
18.29	2	22	19.8	2.0
17.49	2	22	19.8	8.6
16.68	7	22	19.8	9.0
14.89	10	23	20.0	57.6
17.74	2	23	20.0	1.6
17.83	2	23	20.0	2.4
16.99	2	23	20.0	4.6
16.88	5	23	20.0	5.3
17.95	2	23	20.0	5.4
17.45	2	23	20.0	8.6
17.12	3	24	20.2	1.4
15.69	8	24	20.2	2.2
15.76	8	24	20.2	2.3
16.84	7	24	20.2	2.4

411*s*—430*s*				
Mag.		α 12^{m}	x	$y+60'$ / y
		s	′	′
18.06	2	24	20.2	5.0
17.97	2	24	20.2	6.0
16.42	7	24	20.3	0.3
17.67	2	24	20.3	6.3
16.34	7	25	20.5	5.2
10.71	8	25	20.6	57.0
13.84	13	25	20.6	57.1
16.04	8	25	20.6	58.9
16.67	7	25	20.6	4.2
14.74	11	26	20.8	57.2
16.72	5	27	20.9	57.5
18.11	2	27	20.9	6.4
15.69	9	27	21.0	2.6
16.75	5	27	21.0	2.9
16.26	7	27	21.0	4.0
16.82	7	27	21.0	7.0
17.22	2	27	21.1	1.2
18.05	2	27	21.1	6.6
18.25	2	28	21.2	58.7
18.03	2	28	21.2	59.0

431*s*—445*s*				
Mag.		α 12^{m}	x	$y+60'$ / y
		s	′	′
16.69	5	28	21.2	59.8
15.11	9	28	21.2	0.2
17.96	2	28	21.2	2.7
16.97	3	28	21.3	2.8
16.71	7	28	21.4	2.6
16.69	5	29	21.4	3.2
18.22	2	29	21.5	59.8
17.39	2	29	21.5	1.6
17.91	2	29	21.6	59.6
17.43	2	30	21.6	1.2
17.81	2	29	21.6	3.0
18.29	2	30	21.8	59.1
17.12	3	31	21.9	0.8
17.43	2	31	21.9	2.4
16.67	7	32	22.2	1.6

25 prec. + $67^{\mathrm{s}}.8$, + 0′ 27″

19^{h} Area 87. Center for 1900: $19^{\mathrm{h}}\ 11^{\mathrm{m}} + 15°\ 0'$ $(15' \times 15')$ + 14°, + 15°

1—30				
Mag.		α 10^{m}	x	$y+60'$ / y
		s	′	′ ″
13.68	17	43.5	96.03	57 46
18.64	3	43.6	96.04	4 19
18.64	3	43.7	96.07	9 40
17.56	5	43.8	96.08	57 55
18.63	3	43.9	96.11	57 09
17.38	6	44.0	96.13	7 19
18.40	1	44.1	96.15	55 54
17.72	3	44.1	96.15	3 47
17.47	5	44.1	96.15	3 40
17.71	3	44.1	96.16	5 43
18.31	3	44.2	96.17	4 36
17.06	8	44.2	96.17	3 20
17.26	8	44.4	96.22	58 25
18.66	3	44.4	96.23	3 53
18.46	3	44.5	96.25	59 59
18.54	3	44.6	96.28	3 48
18.41	3	44.6	96.28	7 18
18.66	3	45.0	96.37	1 44
18.82	3	45.0	96.37	1 54
15.04	13	45.0	96.38	7 32
17.14	8	45.0	96.38	56 11
17.09	8	45.1	96.39	2 48
17.40	7	45.1	96.40	1 14
18.03	3	45.2	96.42	6 35
18.66	3	45.4	96.47	5 42
17.24	8	45.4	96.47	56 40
15.80	12	45.4	96.48	9 09
15.47	13	45.5	96.50	4 15
17.67	3	45.7	96.54	6 05
17.75	5	45.7	96.54	9 00

31—60				
Mag.		α 10^{m}	x	$y+60'$ / y
		s	′	′ ″
18.06	3	45.8	96.57	1 09
17.97	3	45.8	96.57	58 31
17.10	8	45.8	96.58	57 14
18.24	3	46.0	96.62	56 05
17.35	8	46.0	96.62	9 03
18.35	3	46.0	96.62	9 53
15.95	11	46.0	96.63	55 55
18.13	1	46.1	96.64	55 21
15.20	13	46.1	96.66	59 55
18.11	3	46.1	96.66	6 54
18.60	3	46.1	96.66	5 19
18.46	3	46.1	96.66	8 03
18.18	3	46.2	96.67	8 13
18.66	3	46.2	96.68	58 03
18.40	3	46.3	96.69	56 19
18.23	3	46.3	96.69	6 45
18.52	3	46.4	96.72	2 04
17.20	8	46.5	96.75	6 37
18.49	3	46.7	96.78	58 25
14.20	16	46.8	96.80	55 57
18.68	3	46.8	96.81	5 18
15.51	12	47.0	96.84	57 50
17.74	3	47.0	96.86	9 50
17.17w	5	47	96.9	3 00
14.81	14	47.2	96.90	0 53
17.37	8	47.2	96.90	59 33
17.26	8	47.2	96.91	5 17
17.54	7	47.2	96.91	4 27
18.60	3	47.3	96.93	7 51
16.70	8	47.3	96.93	59 02

61—90				
Mag.		α 10^{m}	x	$y+60'$ / y
		s	′	′ ″
17.34	5	47.3	96.93	1 47
12.59	16	47.4	96.94	2 40
18.70	2	47.5	96.98	6 34
18.04	3	47.6	97.01	2 43
17.40	8	47.6	97.01	4 59
17.52	7	47.7	97.02	1 53
18.10	3	47.7	97.02	7 28
18.00	3	47.7	97.03	1 34
18.44	2	47.7	97.03	57 11
18.39	3	47.7	97.04	6 31
17.03	8	47.8	97.04	1 19
17.34	7	47.8	97.04	57 09
16.02	11	47.8	97.07	59 55
18.20	3	47.9	97.08	7 34
17.58	7	48.0	97.11	2 23
17.52	5	48.2	97.14	8 13
18.27	3	48.3	97.17	3 35
16.90	8	48.4	97.20	59 39
18.40	3	48.5	97.22	57 00
18.02	3	48.5	97.22	9 28
18.54	2	48.5	97.22	9 47
16.10	11	48.5	97.23	6 09
15.34	12	48.5	97.23	8 06
17.28	6	48.7	97.27	7 18
17.75	5	48.7	97.27	3 22
17.73	5	48.7	97.27	0 46
18.37	3	48.7	97.28	56 50
15.34	13	48.8	97.29	7 53
18.27	3	48.9	97.32	1 56
18.53	3	49.0	97.34	1 40

91—120				
Mag.		α 10^{m}	x	$y+60'$ / y
		s	′	′ ″
16.41	8	49.0	97.34	55 45
16.92	6	49.0	97.36	7 57
18.19	3	49.2	97.39	3 55
18.47	3	49.2	97.41	57 56
17.10	6	49.3	97.42	57 50
17.21	8	49.5	97.47	1 47
18.22	3	49.6	97.51	5 13
17.05	8	49.8	97.55	9 43
17.43	5	49.8	97.55	7 59
16.23	10	49.9	97.57	8 58
17.08	8	49.9	97.57	57 33
18.00	3	50.0	97.59	57 09
16.64	8	50.1	97.60	57 29
16.10	11	50.3	97.67	0 34
18.48	3	50.4	97.67	7 04
16.33	11	50.5	97.70	59 18
12.00w	13	50.5	97.71	7 15
18.02	3	50.6	97.72	1 14
16.29	9	50.7	97.74	7 30
16.56	8	50.7	97.75	3 50
18.46	2	50.8	97.77	56 51
18.62	3	50.8	97.78	0 13
17.16	8	50.9	97.79	0 57
17.44	5	50.9	97.79	5 17
18.73	3	50.9	97.80	57 22
18.63	2	50.9	97.80	57 53
17.83	3	51.0	97.82	56 05
18.41	3	51.1	97.85	4 57
17.59	5	51.2	97.87	1 43
18.12	3	51.3	97.89	57 48

121—150				
Mag.		α 10^{m}	x	$y+60'$ / y
		s	′	′ ″
17.90	3	51.3	97.92	7 16
16.46	9	51.4	97.92	0 12
17.26	7	51.5	97.94	1 17
17.55	7	51.5	97.94	3 20
17.87	5	51.5	97.94	4 09
17.22	7	51.5	97.96	7 31
17.81	3	51.7	98.00	4 58
17.75	5	51.7	98.01	3 04
18.60	2	51.9	98.06	57 00
18.42	3	52.0	98.08	4 36
18.25	3	52.1	98.09	56 24
17.71	5	52.3	98.14	58 55
17.55	3	52.3	98.14	56 34
17.32	8	52.3	98.15	58 18
14.72	14	52.3	98.15	59 35
17.02	8	52.3	98.16	59 41
17.45w	4	52	98.2	8 06
17.93	3	52.6	98.22	9 33
16.50	10	52.7	98.24	4 22
17.97	3	52.7	98.25	2 59
11.04w	8	52.8	98.26	8 01
18.63	3	52.8	98.27	6 09
17.82	5	52.8	98.27	2 35
18.10	3	52.9	98.30	59 44
18.13	3	52.9	98.30	3 02
17.90	5	52.9	98.31	1 39
17.03	8	53.0	98.32	8 30
17.24	8	53.1	98.33	6 54
16.74	8	53.1	98.34	3 32
17.54	7	53.2	98.36	57 35

25 prec. + $68^{\mathrm{s}}.2$, + 2′ 32″

151—210				
Mag.		α 10^m	x	$y+60'$ y
		s	′	′ ″
18.05	3	53.3	98.37	6 00
17.88	3	53.3	98.37	0 22
16.99	8	53.3	98.38	58 51
18.31	3	53.4	98.39	6 08
18.45	3	53.4	98.39	2 29
18.33	3	53.4	98.41	3 30
17.01	8	53.6	98.44	4 29
17.91	5	53.6	98.45	59 39
18.10	3	53.8	98.49	0 21
16.73	9	53.8	98.50	0 58
18.24	3	53.9	98.53	59 17
17.86	3	54.0	98.54	59 27
18.69	3	54.0	98.55	4 59
16.96	8	54.0	98.56	3 48
17.93	3	54.0	98.56	58 43
18.28	3	54.0	98.56	56 08
18.68	3	54.2	98.58	6 15
18.22	1	54.2	98.59	58 55
17.82	3	54.4	98.65	8 19
17.47	7	54.4	98.65	7 54
17.22	8	54.4	98.65	9 16
17.72	5	54.4	98.66	3 20
17.98	3	54.5	98.68	58 33
17.89	3	54.5	98.68	5 13
17.87	3	54.6	98.69	9 21
17.38	7	54.6	98.69	8 16
17.20	8	54.7	98.72	7 05
17.30	8	54.7	98.72	6 34
17.45	7	54.8	98.75	6 48
17.41	7	54.9	98.77	7 19
15.61	12	54.9	98.77	0 00
17.35	8	54.9	98.78	4 34
17.45	7	54.9	98.78	56 03
17.29	8	55.0	98.81	8 41
18.61	3	55.1	98.82	55 33
17.10	9	55.1	98.83	6 01
17.44	7	55.2	98.84	55 41
18.39	3	55.3	98.88	9 40
18.42	3	55.4	98.90	6 18
18.12	3	55.4	98.90	58 45
17.44	7	55.4	98.91	4 31
16.74	8	55.5	98.92	58 42
15.93	12	55.6	98.95	58 09
18.52	3	55.6	98.95	4 41
17.44	8	55.7	98.96	0 06
18.68	3	55.8	98.99	59 59
18.56	3	55.9	99.01	6 48
18.64	3	56.1	99.05	8 03
17.95	3	56.1	99.05	58 44
17.54	8	56.4	99.12	0 40
18.61	3	56.5	99.15	3 09
18.50	3	56.5	99.15	9 12
18.27	3	56.5	99.16	9 20
18.34	3	56.6	99.17	2 49
18.72	3	56.7	99.19	0 24
17.52	5	56.7	99.19	57 46
15.85	11	56.7	99.20	0 07
18.66	3	56.7	99.21	8 50
18.70	3	56.8	99.23	55 37
18.58	3	56.9	99.25	2 16

211—270				
Mag.		α 10^m	x	$y+60'$ y
		s	′	′ ″
15.40	12	56.9	99.26	9 43
17.59	5	57.0	99.27	5 42
17.58	5	57.0	99.27	59 45
18.71	3	57.0	99.28	1 17
17.98	3	57.1	99.30	8 26
13.92	16	57.1	99.31	9 58
17.66	7	57.1	99.31	0 34
17.78	5	57.3	99.34	59 05
18.68	3	57.3	99.34	57 30
16.43	9	57.3	99.36	59 15
16.72	8	57.3	99.36	0 23
17.93	3	57.3	99.36	9 36
16.36	9	57.4	99.37	9 30
18.24	3	57.5	99.39	7 48
15.69	12	57.5	99.39	55 32
18.63	3	57.5	99.40	59 44
18.32	3	57.5	99.41	9 48
17.17	8	57.5	99.41	3 17
16.31	10	57.5	99.41	2 55
17.48	8	57.5	99.41	0 46
17.83	3	57.6	99.42	2 43
18.50	3	57.6	99.42	6 10
16.81	8	57.6	99.43	7 35
17.73	5	57.7	99.45	8 17
17.14	8	57.7	99.46	1 12
15.86	12	57.8	99.47	9 40
17.56	6	57.8	99.48	7 04
18.58	3	57.8	99.48	4 09
18.17	3	57.9	99.50	8 53
13.54	17	57.9	99.51	59 32
18.62	3	58.0	99.52	9 30
17.28	8	58.0	99.53	58 55
18.26	3	58.1	99.55	5 19
17.33	8	58.2	99.57	56 38
17.66	7	58.2	99.58	0 59
17.50	8	58.3	99.59	1 37
18.34	3	58.3	99.61	58 52
18.69	3	58.3	99.61	3 13
18.72	3	58.3	99.61	8 19
16.02	11	58.6	99.66	7 20
18.25	3	58.6	99.67	6 12
18.26	3	58.7	99.69	5 40
17.51	7	58.9	99.73	2 46
17.83	3	59.0	99.75	5 27
15.85	11	59.0	99.76	8 24
17.62	5	59.1	99.77	3 47
17.49:	7	59.4	99.86	57 31
17.63	3	59.5	99.87	57 39
15.97	10	59.5	99.87	0 55
17.26	8	59.6	99.89	7 30
17.83	3	59.6	99.91	57 20
18.17	3	59.6	99.91	2 50
16.60	8	59.7	99.93	0 44
18.64	3	59.7	99.93	57 14
18.38	3	59.8	99.96	59 24
17.91	3	59.9	99.97	5 13
17.41	7	59.9	99.97	9 08
18.51	3	59.9	99.98	4 01
18.19	3	60.1	0.02	7 01
15.70	11	60.1	0.03	6 01

271—330				
Mag.		α 11^m	x	$y+60'$ y
		s	′	′ ″
18.59	3	0.2	0.04	8 27
17.26	8	0.2	0.04	9 56
18.47	3	0.2	0.05	58 15
17.84	3	0.2	0.06	9 10
16.54	9	0.3	0.07	5 51
18.53	3	0.3	0.07	57 01
18.51	3	0.4	0.09	4 38
17.34	8	0.4	0.09	9 59
18.34	3	0.4	0.09	7 14
18.55	3	0.4	0.10	8 59
18.00	3	0.5	0.13	57 15
17.68	5	0.6	0.16	55 53
18.46	3	0.7	0.18	6 50
18.50	3	0.8	0.21	7 07
18.26	3	0.8	0.21	8 04
17.49	7	0.9	0.23	9 02
16.19	12	1.0	0.26	3 12
16.34	9	1.1	0.27	4 56
17.55	5	1.1	0.27	8 03
17.14	8	1.1	0.28	8 19
17.75	5	1.1	0.28	55 49
18.02	3	1.2	0.29	8 44
15.29	13	1.2	0.29	6 31
17.90	7	1.2	0.29	3 10
18.12	3	1.2	0.31	6 47
17.58	7	1.4	0.34	6 25
16.25	9	1.4	0.34	0 30
17.51	5	1.4	0.34	56 02
17.62	7	1.4	0.35	57 29
17.20	8	1.4	0.35	7 14
16.50	8	1.5	0.36	6 59
18.65	3	1.5	0.36	3 58
15.73	12	1.5	0.37	5 03
16.96	8	1.7	0.41	5 17
18.15	3	1.8	0.42	57 39
17.54	7	1.8	0.43	9 13
18.30	3	1.9	0.46	8 38
17.36	7	1.9	0.46	7 03
18.41	3	2.0	0.48	5 37
17.36	8	2.0	0.48	7 10
18.49	1	2.0	0.48	4 05
18.80	3	2.0	0.48	4 39
15.47	12	2.1	0.51	4 07
17.80	3	2.2	0.52	7 35
14.24	14	2.4	0.57	59 22
17.44	7	2.4	0.57	55 29
18.11	3	2.4	0.58	3 24
18.35	3	2.4	0.58	7 04
15.45	12	2.4	0.58	6 57
18.24	3	2.4	0.59	59 26
18.67	3	2.4	0.59	9 41
18.91	3	2.6	0.63	0 33
18.86	3	2.7	0.65	6 50
18.45	3	2.7	0.66	56 14
18.63	3	2.8	0.67	57 56
18.57	3	2.9	0.70	9 42
17.89	5	2.9	0.71	58 43
17.57	7	3.2	0.77	58 44
18.50	3	3.2	0.77	57 02
15.81	12	3.2	0.77	0 39

331—390				
Mag.		α 11^m	x	$y+60'$ y
		s	′	′ ″
16.74	8	3.2	0.77	2 39
16.22	10	3.3	0.80	59 15
18.00	3	3.3	0.80	58 50
17.22	8	3.3	0.80	6 00
18.41	3	3.4	0.82	4 49
18.60	3	3.5	0.84	59 09
13.74	16	3.6	0.88	0 36
18.54	3	3.6	0.88	8 40
18.11	3	3.7	0.89	8 10
17.31	8	3.7	0.89	55 35
17.89	3	3.7	0.90	7 41
17.94	3	3.7	0.91	55 17
17.57	8	3.9	0.96	0 23
18.34	3	4.0	0.98	56 20
18.70	3	4.1	0.99	58 07
18.57	1	4.1	0.99	6 58
17.41	6	4.1	1.00	8 00
18.64	3	4.3	1.04	6 13
17.73	5	4.4	1.06	57 51
17.13	8	4.4	1.07	57 21
17.59	7	4.4	1.07	9 49
18.26	3	4.5	1.08	8 06
17.58	7	4.6	1.11	1 29
16.92	8	4.6	1.11	58 15
17.50	8	4.8	1.15	58 11
17.48	8	4.8	1.15	3 00
18.26	3	4.9	1.17	7 19
17.71	5	5.0	1.21	3 30
18.78	3	5.0	1.21	59 00
17.57	5	5.1	1.22	5 15
17.68	5	5.1	1.23	55 19
18.42	3	5.2	1.24	7 03
18.39	3	5.2	1.25	59 55
18.64	3	5.2	1.25	4 42
17.74	7	5.2	1.26	1 35
18.84	3	5.2	1.26	0 46
17.40	7	5.2	1.26	9 58
17.27	8	5.3	1.27	8 54
17.71	5	5.3	1.27	7 51
17.33	8	5.4	1.29	2 24
17.63	5	5.4	1.30	6 04
17.25	8	5.4	1.31	8 47
18.87	3	5.6	1.35	0 17
18.06	2	5.7	1.38	5 09
18.63	2	5.7	1.38	7 15
18.41	3	5.8	1.39	58 57
18.76	3	5.9	1.42	6 07
17.66	7	5.9	1.43	2 09
18.62	3	6.0	1.45	2 49
18.09	3	6.0	1.46	59 45
18.63	3	6.2	1.50	6 43
17.78	7	6.2	1.50	2 09
18.66	3	6.3	1.52	3 24
18.54	3	6.3	1.52	57 02
18.31	3	6.3	1.53	57 20
17.07	8	6.4	1.55	55 56
18.25	3	6.5	1.58	3 29
18.46	3	6.6	1.60	9 50
18.61	3	6.6	1.60	5 23
18.69	3	6.7	1.62	1 31

391—450				
Mag.		α 11^m	x	$y+60'$ y
		s	′	′ ″
17.74	3	6.8	1.64	8 09
17.14	8	6.8	1.66	57 18
18.10	5	6.9	1.67	1 02
18.27	3	6.9	1.67	5 35
18.57	3	6.9	1.68	55 33
18.75	3	7.2	1.74	3 40
18.53	3	7.2	1.74	8 20
18.55	3	7.2	1.74	6 45
17.98:	3	7.2	1.75	55 22
16.33	9	7.3	1.77	56 48
17.90	5	7.4	1.78	4 08
18.25	3	7.5	1.81	5 47
17.70	3	7.5	1.81	7 25
18.78	3	7.7	1.84	0 00
18.64	3	7.7	1.86	3 42
17.58	7	7.8	1.87	4 49
18.22	3	7.8	1.87	3 24
14.07	16	7.9	1.89	3 55
18.62	3	7.9	1.90	58 20
17.74	3	8.0	1.92	7 11
16.70	8	8.1	1.95	8 40
17.42	8	8.1	1.95	56 40
18.14	5	8.1	1.96	2 19
18.70	3	8.2	1.97	56 24
18.55	3	8.2	1.98	7 59
18.53	3	8.3	2.00	57 21
18.36	3	8.3	2.00	4 08
17.35	8	8.4	2.03	7 20
18.79	3	8.5	2.04	1 50
18.39	3	8.5	2.05	9 58
18.11	5	8.5	2.06	1 58
18.18	3	8.6	2.08	6 04
18.58	3	8.7	2.09	5 13
17.94	3	8.7	2.10	8 59
18.68	3	8.7	2.11	2 12
18.81	3	8.7	2.12	59 57
18.50	3	9.1	2.20	57 01
18.61	3	9.2	2.22	58 39
17.93	7	9.3	2.24	2 14
17.74	7	9.4	2.28	0 37
18.09	3	9.4	2.28	8 29
17.16	8	9.4	2.28	9 15
18.74	3	9.5	2.30	57 15
18.01	5	9.5	2.30	2 20
18.37	3	9.5	2.31	6 49
18.28	3	9.7	2.35	9 12
18.44	3	9.7	2.35	9 24
17.42	7	9.7	2.35	5 49
18.50	3	9.7	2.36	7 33
18.37	3	9.7	2.36	8 04
14.30	16	9.7	2.36	1 43
18.57	3	9.9	2.40	0 00
18.41	3	9.9	2.41	7 30
17.30	8	10.1	2.44	5 32
18.81	3	10.1	2.45	3 50
18.13	3	10.2	2.47	4 09
17.46	8	10.3	2.48	4 43
17.64	7	10.3	2.48	57 17
17.61	7	10.6	2.56	6 49
17.59	7	10.8	2.60	7 28

25 prec. + $68^s.2$, + 2′ 33″

451—510				511—570				571—630				631—690				691—750			
Mag.	α 11^m	x	$y+60'$ / y	Mag.	α 11^m	x	$y+60'$ / y	Mag.	α 11^m	x	$y+60'$ / y	Mag.	α 11^m	x	$y+60'$ / y	Mag.	α 11^m	x	$y+60'$ / y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.60 8	10.9	2.62	6 29	18.42 3	14.9	3.60	7 54	17.93 7	18.7	4.52	1 21	18.71 3	23.0	5.55	1 17	18.68 3	26.3	6.35	5 34
18.32 3	10.9	2.62	55 51	18.43 3	14.9	3.61	4 16	18.66 3	18.7	4.53	58 59	17.18 8	23.0	5.56	55 55	18.71 3	26.3	6.36	0 28
18.19 3	11.0	2.66	58 24	16.46 9	15.0	3.62	0 45	18.58 3	18.9	4.57	59 17	18.07 5	23.3	5.63	4 10	18.01 5	26.5	6.39	1 22
17.74 7	11.1	2.67	6 46	18.67 3	15.0	3.62	8 01	17.93 3	18.9	4.58	6 47	18.04 5	23.4	5.64	2 45	18.52 3	26.5	6.40	55 50
18.31 3	11.1	2.68	8 08	18.15 5	15.1	3.65	0 33	16.93 8	19.0	4.59	56 52	17.51 8	23.4	5.66	7 08	18.24 3	26.5	6.40	57 42
18.41 3	11.2	2.70	57 31	18.21 3	15.1	3.66	4 38	17.30 5	19.1	4.62	56 10	18.70 3	23.4	5.66	0 50	17.85 5	26.8	6.48	1 18
17.14 8	11.2	2.71	57 44	9.66w 8	15.2	3.67	2 49	17.67 7	19.2	4.65	6 47	18.39 3	23.5	5.67	0 09	18.31 3	26.9	6.49	55 11
17.73 7	11.4	2.75	1 11	18.75 3	15.2	3.68	9 07	13.76 18	19.2	4.65	7 40	16.60 10	23.6	5.69	59 35	15.94 10	26.9	6.51	56 11
18.81 3	11.6	2.79	1 35	18.42 3	15.3	3.70	59 00	17.66 7	19.3	4.66	59 07	18.42 3	23.6	5.69	8 58	18.70 3	27.0	6.52	2 14
18.70 3	11.6	2.80	59 10	18.36 3	15.3	3.70	2 34	18.60 3	19.4	4.69	57 11	18.76 3	23.6	5.71	5 25	18.04 3	27.0	6.52	1 11
17.43 8	11.6	2.81	57 51	17.05 8	15.3	3.71	0 10	15.94 11	19.5	4.70	59 44	18.04 3	23.6	5.71	5 10	18.06 3	27.1	6.54	1 30
17.85 3	11.7	2.82	56 18	16.98 8	15.4	3.73	57 11	17.61 7	19.5	4.71	5 26	18.41 3	23.7	5.72	58 51	18.57 1	27.1	6.55	58 57
18.78 3	11.7	2.83	2 14	17.83 3	15.5	3.74	9 43	17.63 7	19.5	4.71	58 40	17.79 3	23.7	5.73	1 12	17.80 3	27.1	6.56	8 25
18.59 3	11.8	2.84	6 33	18.64 3	15.5	3.76	0 03	16.07 10	19.6	4.72	59 30	14.15 16	23.7	5.73	7 48	18.53 3	27.2	6.58	56 30
18.87 3	11.8	2.85	0 57	18.63 3	15.6	3.77	8 09	17.33 8	19.6	4.73	58 49	18.28 3	23.8	5.76	2 27	17.07 8	27.3	6.59	7 44
17.91 7	11.9	2.87	1 06	18.15 3	15.6	3.77	5 03	17.43 7	19.8	4.77	56 04	16.22 9	23.9	5.78	8 18	17.94 5	27.3	6.61	2 34
17.37 7	11.9	2.87	9 46	16.59 8	15.7	3.80	5 45	16.87 8	19.8	4.78	56 41	17.87 5	24.0	5.81	0 21	18.17 3	27.3	6.61	59 06
18.65 3	11.9	2.88	3 23	18.71 3	15.7	3.80	3 35	18.26 3	19.9	4.79	58 14	18.46 3	24.0	5.81	2 33	18.40 3	27.4	6.63	57 58
17.78d 1	12.0	2.89	56 43	18.00 3	15.9	3.85	58 59	18.83 3	20.0	4.82	8 28	18.12 3	24.1	5.83	5 14	17.12 8	27.5	6.65	57 31
17.78 7	12.0	2.90	0 30	18.36 3	16.0	3.87	5 36	17.31 8	20.1	4.84	4 35	15.25 12	24.1	5.83	9 58	13.79 17	27.5	6.65	58 18
18.77 3	12.0	2.90	3 05	16.28 10	16.2	3.92	57 46	16.55 9	20.1	4.86	3 30	17.35 8	24.2	5.84	9 20	17.59 7	27.5	6.65	59 40
18.04 3	12.0	2.90	8 15	18.54 3	16.2	3.92	56 47	16.85 8	20.1	4.86	55 05	16.56 8	24.2	5.84	8 58	18.55 3	27.7	6.70	57 31
18.22 3	12.2	2.95	5 25	16.77 8	16.2	3.93	5 06	18.04 5	20.3	4.89	3 59	18.53 3	24.3	5.88	8 13	17.32 8	27.7	6.70	57 23
18.50 3	12.3	2.98	1 22	17.48 3	16.3	3.95	9 50	18.02 5	20.3	4.90	3 15	16.96 8	24.3	5.88	4 23	18.58 3	28.0	6.76	58 59
15.76 12	12.4	3.01	2 57	17.15 8	16.3	3.95	4 51	18.53 3	20.3	4.90	59 39	18.41 3	24.5	5.92	2 44	18.45 3	28.0	6.76	1 46
18.70 3	12.5	3.02	59 09	17.53 7	16.4	3.96	7 09	18.52 3	20.3	4.91	9 43	17.67 3	24.5	5.92	56 21	18.18 3	28.0	6.77	57 48
17.62 8	12.5	3.03	59 15	17.33 8	16.4	3.97	8 35	18.56 3	20.5	4.95	0 21	17.07 8	24.5	5.92	9 37	18.33 3	28.0	6.77	9 25
18.42 3	12.5	3.03	58 27	18.00 3	16.5	3.98	9 56	17.94 7	20.6	4.97	2 45	18.44 3	24.6	5.94	7 48	18.56 3	28.1	6.78	6 24
18.19 3	12.5	3.03	0 11	13.56 18	16.5	3.98	3 31	18.35 2	20.7	5.00	4 07	15.54 12	24.6	5.94	1 15	18.47 3	28.2	6.80	8 03
15.25 13	12.7	3.08	6 40	17.63 7	16.6	4.01	58 59	15.84 12	20.7	5.00	3 53	18.32 3	24.6	5.96	59 19	16.96 8	28.3	6.83	55 50
18.30 3	12.7	3.08	5 53	17.92 3	16.7	4.02	56 00	18.90 3	20.7	5.01	1 59	18.73 3	24.8	6.00	3 00	18.26 3	28.4	6.85	7 22
17.46 8	12.8	3.09	4 22	18.66 3	16.7	4.03	57 31	17.81 3	20.9	5.03	9 40	18.22 3	24.9	6.02	56 21	16.42 9	28.4	6.85	1 29
17.45 7	12.8	3.10	9 38	18.09 3	16.7	4.03	56 27	18.80 2	21.0	5.08	59 49	16.18 11	24.9	6.03	59 07	17.46 8	28.5	6.87	58 05
16.80 8	12.8	3.11	8 59	18.90 2	16.8	4.04	1 47	18.54 3	21.0	5.08	7 09	16.16 11	24.9	6.03	56 32	18.75 1	28.5	6.88	1 48
18.03 3	13.0	3.14	0 09	18.27 3	16.8	4.05	8 45	18.42 3	21.0	5.08	0 52	17.35 8	25.0	6.04	7 53	17.63 7	28.7	6.92	4 58
17.87 5	13.1	3.17	7 30	18.31 3	16.9	4.08	56 34	18.82 3	21.1	5.09	2 19	16.35 9	25.0	6.04	5 18	18.12 3	28.8	6.96	9 39
18.30 3	13.1	3.18	5 10	15.02 14	17.0	4.11	2 28	18.67 3	21.1	5.11	1 53	17.54 7	25.0	6.05	7 21	18.55 3	29.0	6.99	9 40
15.97 11	13.2	3.20	5 16	15.96 12	17.2	4.15	9 39	17.59 7	21.3	5.15	59 21	18.74 3	25.1	6.07	3 52	16.84 8	29.0	7.00	4 39
17.14 8	13.3	3.22	7 16	17.96 3	17.3	4.17	59 08	17.86 3	21.3	5.16	57 31	17.98 3	25.3	6.11	6 37	16.20 11	29.0	7.01	2 41
17.60 8	13.4	3.24	4 25	18.05 3	17.4	4.19	58 17	17.93 7	21.3	5.16	2 03	17.56 8	25.4	6.12	57 39	18.75 1	29.2	7.04	2 19
14.88 13	13.4	3.25	3 23	16.51 8	17.4	4.21	5 17	16.66 8	21.4	5.18	56 30	16.43 8	25.4	6.13	58 59	18.50 3	29.3	7.07	0 50
17.33 8	13.4	3.25	9 19	18.05 3	17.5	4.22	57 37	18.74 3	21.5	5.20	8 40	18.20 3	25.4	6.13	1 46	17.77 5	29.3	7.08	2 35
15.80 12	13.5	3.27	4 09	13.88 16	17.7	4.27	3 36	18.63 3	21.5	5.21	2 40	18.40 3	25.5	6.14	0 26	17.58 7	29.3	7.08	5 57
18.84 3	13.6	3.28	0 15	18.40 3	17.7	4.28	2 44	18.28 3	21.7	5.25	1 22	17.94 5	25.6	6.17	1 55	18.62 3	29.4	7.11	2 49
17.09 8	13.6	3.29	2 15	18.72 3	17.8	4.31	4 46	18.79 3	21.7	5.26	4 22	18.20 3	25.6	6.18	1 11	18.44 3	29.5	7.12	57 48
17.85 7	13.7	3.30	5 29	18.83 3	17.9	4.32	1 26	18.24 3	21.8	5.28	4 49	18.65 3	25.7	6.20	1 44	17.81 5	29.5	7.13	59 26
18.31 1	13.7	3.30	57 54	18.61 3	18.0	4.34	0 11	17.95 3	21.9	5.29	56 04	18.15 5	25.8	6.22	3 28	18.17 3	29.6	7.14	57 41
16.90 8	13.9	3.34	55 39	18.74 3	18.0	4.35	2 45	17.19 8	21.9	5.30	59 55	18.45 3	25.8	6.22	56 09	18.80 3	29.6	7.16	9 39
17.66 7	13.9	3.36	7 40	18.95 3	18.0	4.36	0 41	17.60 7	21.9	5.31	7 50	17.95 3	25.8	6.23	56 07	18.17 3	29.8	7.20	7 50
18.33 3	14.3	3.44	55 42	17.48 8	18.0	4.36	4 31	17.75 7	22.1	5.35	4 52	15.25 12	25.9	6.24	57 35	18.23 3	29.9	7.23	2 38
18.94 2	14.4	3.47	3 58	18.49 3	18.1	4.37	8 52	18.63 3	22.3	5.39	58 52	18.35 3	25.9	6.24	56 46	17.10 8	30.1	7.28	3 44
18.26 3	14.4	3.48	6 14	18.23 3	18.2	4.40	58 02	12.88 17	22.4	5.40	58 17	17.65 5	25.9	6.25	55 24	17.32 8	30.2	7.30	57 45
17.98 3	14.5	3.50	9 53	17.87 5	18.2	4.41	4 09	18.64 3	22.4	5.40	2 17	18.32 3	25.9	6.25	3 14	17.66 7	30.2	7.31	2 38
17.36 8	14.5	3.51	57 26	18.43 3	18.3	4.42	55 54	18.09 3	22.4	5.40	7 03	18.30 3	26.0	6.27	0 38	17.72 7	30.2	7.31	2 36
16.43 9	14.7	3.55	1 43	18.29 3	18.3	4.42	8 25	15.28 13	22.4	5.40	5 54	18.57 3	26.0	6.28	1 40	15.90: 12	30.2	7.31	1 01
17.24 8	14.8	3.57	2 18	17.75 3	18.3	4.43	6 49	18.59 3	22.6	5.45	2 49	18.92 2	26.0	6.28	5 02	18.35 3	30.2	7.31	6 04
18.61 3	14.8	3.57	3 23	18.74 3	18.3	4.43	2 35	17.69 7	22.7	5.47	3 14	18.17 3	26.1	6.30	59 07	17.95 3	30.3	7.32	7 12
18.15 3	14.8	3.57	56 11	17.12 8	18.4	4.44	4 20	18.61 3	22.8	5.50	5 45	17.42 7	26.1	6.31	1 10	17.15 8	30.3	7.33	8 18
18.60 3	14.8	3.57	7 08	15.69 12	18.4	4.45	6 28	17.69 7	22.9	5.53	59 03	18.12 3	26.2	6.32	3 30	18.11 3	30.4	7.36	55 08
18.72 3	14.8	3.58	6 16	18.13 3	18.5	4.48	6 49	17.67 7	23.0	5.54	6 41	18.02 3	26.3	6.34	56 19	17.74 7	30.5	7.37	4 29

25 prec. + $68^{s}.2$, + 2′ 34″

Area 87

751—810				811—870				871—930				931—970			
Mag.	α 11^{m}	x	$y+60'$ / y	Mag.	α 11^{m}	x	$y+60'$ / y	Mag.	α 11^{m}	x	$y+60'$ / y	Mag.	α 11^{m}	x	$y+60'$ / y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.73 7	30.5	7.37	3 25	17.99 3	34.2	8.26	2 56	18.19 3	37.9	9.15	7 50	18.00 3	42.7	10.33	57 30
17.27 7	30.6	7.39	57 09	17.70 7	34.2	8.27	1 35	17.87 3	37.9	9.15	55 29	18.57 1	42.8	10.35	3 03
17.41 7	30.6	7.39	57 25	18.54 3	34.4	8.30	56 27	15.07 12	37.9	9.15	3 12	17.94 3	42.8	10.35	7 58
18.03 3	30.6	7.40	7 07	15.59 11	34.4	8.31	4 17	16.12 12	37.9	9.16	0 20	18.70 3	42.9	10.37	7 12
17.54 7	30.6	7.40	6 54	18.33 3	34.4	8.31	5 30	18.69 3	38.1	9.20	57 49	18.51 3	42.9	10.37	2 29
17.60 7	30.6	7.40	4 32	17.84 5	34.4	8.31	7 47	18.08 3	38.2	9.23	57 30	18.46 3	43.1	10.40	4 27
18.87 3	30.6	7.41	9 44	17.43 7	34.5	8.33	56 53	17.99 3	38.2	9.23	9 56	18.42 3	43.2	10.42	5 48
18.50 3	30.9	7.46	57 27	18.34 3	34.6	8.34	56 11	18.59 3	38.3	9.25	3 03	18.53 3	43.2	10.43	1 26
17.31 8	30.9	7.47	56 55	17.43 8	34.6	8.34	6 33	18.44 3	38.3	9.26	8 19	17.16 8	43.3	10.45	59 03
15.12 13	31.0	7.48	1 49	18.15 3	34.6	8.35	55 51	18.44 3	38.4	9.27	9 29	15.90 11	43.3	10.46	8 24
18.45 3	31.1	7.50	55 42	18.35 3	34.6	8.35	2 54	15.77 12	38.4	9.28	2 30	18.43 3	43.5	10.51	58 41
18.26 3	31.2	7.52	57 33	17.37 8	34.6	8.36	6 29	17.50 7	38.5	9.31	0 48	18.03 3	43.6	10.52	6 32
18.81 3	31.2	7.52	5 07	18.14 3	34.7	8.37	1 50	18.35 3	38.6	9.32	0 12	17.48 7	43.6	10.53	55 31
18.62 3	31.2	7.53	4 23	18.55 3	34.8	8.39	55 14	18.52 3	38.6	9.32	5 15	18.31 3	43.7	10.54	8 33
18.47 3	31.3	7.54	55 11	17.06 8	34.8	8.41	9 32	16.51 9	38.7	9.34	9 44	17.33 8	43.8	10.58	3 32
17.85 5	31.3	7.55	4 17	18.17 3	35.0	8.44	2 50	17.37 6	38.8	9.37	3 13	16.66 8	43.9	10.59	55 11
18.74 2	31.3	7.56	9 40	17.23 8	35.0	8.45	5 53	16.70 8	38.8	9.38	59 56	15.32 13	43.9	10.61	7 43
17.75 3	31.4	7.57	9 55	18.44 2	35.0	8.46	55 42	18.64 3	38.9	9.41	7 14	17.18 8	44.0	10.62	7 22
17.39 8	31.4	7.57	2 25	18.19 3	35.1	8.47	3 57	18.58 3	39.1	9.45	8 57	18.53 3	44.0	10.62	2 01
18.62 3	31.5	7.60	7 03	17.13 8	35.1	8.48	9 32	18.47 3	39.1	9.45	2 19	17.90 3	44.2	10.67	2 54
17.41 5	31.5	7.61	5 25	18.42 3	35.2	8.49	0 58	18.33 3	39.3	9.50	5 10	18.26 3	44.3	10.71	5 06
16.58 8	31.6	7.64	59 55	17.98 3	35.4	8.55	1 33	17.39 7	39.4	9.52	2 06	17.40 8	44.4	10.72	8 44
18.62 3	31.7	7.64	55 45	15.90 11	35.4	8.55	6 45	18.46 3	39.4	9.52	0 04	17.46 8	44.4	10.72	4 22
17.82 5	31.8	7.68	5 11	17.66 7	35.4	8.56	6 21	18.51 3	39.5	9.55	7 26	18.18 3	44.4	10.73	1 42
18.44 3	31.8	7.68	3 20	18.31 3	35.4	8.56	55 25	17.45 8	39.5	9.56	6 04	18.01 3	44.5	10.74	2 29
17.77 7	31.9	7.70	1 29	18.54 3	35.5	8.58	8 05	18.04 3	39.6	9.57	8 09	13.36 16	44.5	10.75	2 58
17.79 3	31.9	7.70	7 28	17.42 7	35.6	8.61	55 28	17.54 7	39.6	9.57	57 33	18.66 3	44.5	10.76	4 54
18.13 3	31.9	7.71	2 46	15.41 12	35.8	8.64	57 53	18.89 3	39.8	9.62	4 09	17.20 8	44.6	10.77	4 16
18.47 3	31.9	7.71	55 14	17.97 3	35.8	8.65	56 11	18.67 3	40.2	9.70	1 59	16.18 11	44.7	10.80	3 25
18.71 3	32.1	7.75	58 10	17.36 8	35.8	8.65	4 10	15.15 14	40.2	9.71	2 12	18.29 3	44.7	10.80	8 07
17.89 5	32.1	7.75	3 44	18.11 3	35.8	8.66	6 08	18.22 3	40.2	9.71	8 25	17.89 3	45.0	10.87	7 19
18.30 3	32.1	7.76	9 26	18.63 3	35.8	8.66	3 02	14.07 17	40.3	9.73	59 47	17.30 8	45.0	10.87	2 26
17.67 5	32.1	7.76	57 58	17.43 8	35.8	8.66	4 03	17.77 3	40.3	9.73	56 14	18.27 3	45.0	10.87	3 26
18.46 3	32.3	7.79	59 29	18.16 3	35.9	8.67	1 44	18.39 3	40.4	9.74	7 57	18.37 3	45.1	10.89	2 41
17.40 8	32.3	7.81	9 09	18.56 3	36.0	8.70	55 19	17.86 3	40.4	9.74	7 09	17.43 7	45.2	10.93	1 00
16.89 8	32.3	7.81	5 47	17.69 7	36.2	8.75	3 00	18.15 3	40.4	9.75	5 11	18.28 3	45.2	10.93	5 01
16.24 10	32.4	7.83	7 36	17.26 8	36.2	8.76	4 33	16.70 8	40.4	9.76	5 46	17.65 5	45.2	10.93	8 03
18.75 1	32.4	7.83	3 47	16.69 8	36.3	8.77	3 29	17.43 7	40.4	9.76	57 32	16.18 10	45.3	10.95	6 17
17.57 7	32.5	7.84	7 20	17.46 7	36.3	8.78	8 16	17.90 3	40.5	9.77	0 36	14.49 16	45.3	10.96	58 30
17.42 8	32.5	7.84	58 39	18.12 3	36.4	8.79	59 33	16.09 12	40.5	9.78	3 22	18.46 3	45.3	10.96	56 18
18.01 3	32.5	7.86	59 19	17.34 8	36.4	8.81	2 08	18.41 3	40.6	9.81	1 41				
16.67 9	32.7	7.91	55 49	17.58 7	36.4	8.81	1 32	17.47 7	40.8	9.85	1 06				
17.56 8	33.0	7.98	59 48	17.51 6	36.6	8.84	5 38	18.68 3	40.9	9.87	55 47				
18.75 3	33.0	7.98	0 16	18.55 3	36.7	8.88	7 55	18.46 3	40.9	9.88	4 11				
16.79 8	33.0	7.98	4 50	16.29 9	36.7	8.88	2 58	16.60 9	41.0	9.90	58 01				
18.77 3	33.0	7.98	4 29	17.22 8	36.7	8.88	55 23	18.55 3	41.1	9.93	7 59				
17.05 8	33.1	8.00	9 13	18.03 3	36.8	8.89	9 37	18.53 3	41.2	9.95	2 40				
18.21 3	33.1	8.01	0 29	18.42 3	36.8	8.91	9 31	18.48 3	41.3	9.97	3 52				
16.06 11	33.3	8.03	6 09	17.50 7	36.8	8.91	58 26	16.24 9	41.6	10.04	8 27				
18.61 3	33.4	8.08	59 54	18.45 3	36.9	8.93	5 48	15.61 12	41.7	10.07	59 22				
18.70 3	33.6	8.13	58 34	17.85 3	37.0	8.95	56 39	17.45 7	41.7	10.08	2 02				
17.41 8	33.7	8.14	56 29	18.62 3	37.2	8.98	1 53	17.45 7	41.8	10.11	3 07				
16.63 8	33.7	8.16	58 56	14.17 15	37.2	8.99	0 26	17.28 8	41.8	10.11	56 24				
18.67 3	33.7	8.16	3 43	18.40 3	37.3	9.00	0 44	18.76 3	41.9	10.13	55 23				
17.70 5	33.8	8.18	3 50	16.77 9	37.5	9.04	0 13	17.58 7	42.1	10.17	4 15				
18.26 3	33.9	8.20	55 51	18.66 1	37.5	9.05	6 02	18.58 3	42.2	10.19	4 48				
18.56 3	33.9	8.20	56 34	18.77 3	37.6	9.06	5 35	18.57 1	42.2	10.19	7 17				
14.10 18	34.0	8.23	56 47	18.35 3	37.7	9.11	2 38	18.53 3	42.2	10.22	59 44				
18.41 3	34.0	8.23	5 22	18.53 3	37.8	9.12	7 20	16.16 10	42.5	10.27	7 40				
18.64 3	34.1	8.24	3 18	17.43 8	37.9	9.14	8 07	18.61 3	42.6	10.29	8 58				

25 prec. + 68ˢ.2, + 2′ 34″

1s—60s					61s—120s					121s—180s					181s—240s					241s—300s				
Mag.		α 10^m	x	$y+60'$ / y	Mag.		α 10^m	x	$y+60'$ / y	Mag.		α 10^m	x	$y+60'$ / y	Mag.		α 10^m	x	$y+60'$ / y	Mag.		α 11^m	x	$y+60'$ / y
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
18.59	2	28	92.3	4.3	18.94	2	36	94.1	3.3	17.58	4	40	95.2	2.4	17.49	4	53	98.4	12.6	17.81	2	3	0.7	13.3
17.92	2	30	92.6	0.9	17.43	6	36	94.1	5.3	17.98	2	40	95.2	4.2	16.92	7	53	98.4	12.8	17.28	7	3	0.8	54.2
17.18	5	29	92.6	4.6	18.30	2	36	94.1	7.8	18.94	2	40	95.2	8.2	17.58	4	54	98.5	11.4	16.76	6	4	0.8	54.6
16.38	8	29	92.6	4.9	17.22	6	36	94.2	57.0	18.71	2	40	95.2	10.0	18.82	2	54	98.6	12.4	18.70	2	3	0.8	10.4
16.81	7	30	92.7	0.4	17.90	2	36	94.2	58.4	17.92	2	41	95.3	6.2	16.40:	7	55	98.7	53.6	18.70	2	3	0.8	11.2
17.13	7	30	92.7	4.3	18.88	2	36	94.2	59.9	18.80	2	41	95.3	9.8	18.70	2	55	98.7	54.7	18.00	2	3	0.8	13.4
18.60	2	30	92.8	0.6	18.30	2	36	94.2	1.0	18.58	2	41	95.4	57.4	17.27	7	55	98.7	11.0	18.35	2	4	0.9	12.2
17.33	6	30	92.8	0.8	17.90	2	36	94.2	1.4	18.38	2	41	95.4	58.2	12.65	14	55	98.8	52.9	16.71	7	4	1.0	52.5
17.80	2	30	92.8	2.8	18.29	2	36	94.2	3.6	18.16	2	41	95.4	58.8	18.90	2	55	98.8	10.2	18.92	2	4	1.0	53.4
18.74	2	31	92.9	3.2	18.06	2	36	94.2	5.8	18.22	2	41	95.4	59.3	18.84	2	55	98.8	10.3	18.80	2	4	1.0	53.7
16.57	7	31	92.9	6.4	17.52	4	36	94.3	56.8	16.39	8	41	95.4	6.4	17.33	7	55	98.8	10.7	18.09	2	4	1.0	54.2
15.31	10	31	93.0	58.6	17.51	4	36	94.3	2.2	18.00	2	41	95.4	6.8	18.35	2	55	98.9	10.4	18.25	2	4	1.0	54.8
18.64	2	31	93.0	3.0	17.21	7	37	94.4	57.7	17.21	4	41	95.4	10.8	17.32	7	55	98.9	11.0	18.96	2	4	1.0	11.8
14.31	12	31	93.0	4.6	18.36	2	37	94.4	0.8	18.74	2	42	95.6	57.2	17.45	4	55	98.9	12.1	18.63	2	5	1.1	52.5
16.49	8	31	93.1	1.1	18.26	2	37	94.4	1.3	16.95	7	42	95.6	58.0	17.61	2	56	99.0	53.6	16.23	9	5	1.1	12.2
17.30	6	31	93.1	1.8	18.00	2	37	94.4	4.0	17.74	2	42	95.6	58.3	18.40	2	56	99.0	10.6	17.17	5	5	1.2	52.2
16.58	8	31	93.1	2.0	17.51	4	37	94.4	4.4	17.65	4	42	95.6	1.3	18.86	2	56	99.1	54.2	17.16	7	5	1.2	10.8
17.36	4	31	93.1	4.9	17.92	2	37	94.4	6.8	18.88	2	42	95.6	3.4	18.52	2	57	99.2	54.4	18.58	2	5	1.2	13.3
17.20	7	31	93.1	5.1	18.18	2	37	94.4	8.4	18.44	2	42	95.6	4.8	18.40	2	57	99.3	54.2	18.94	2	5	1.3	53.4
19.01	2	31	93.1	5.2	18.51	2	37	94.5	56.4	18.73	2	42	95.6	5.0	17.30	7	58	99.4	52.8	15.61	10	5	1.3	10.6
17.64	2	31	93.1	5.4	17.11	7	37	94.5	0.8	17.30	4	42	95.6	6.8	18.38	2	58	99.4	53.5	17.84	2	6	1.4	11.0
17.23	7	32	93.2	3.4	17.08	7	37	94.5	8.6	15.43	10	42	95.6	9.6	18.76	2	58	99.4	54.4	18.90	2	6	1.4	12.7
15.97	10	32	93.2	5.0	18.02	2	38	94.6	0.5	18.46	2	42	95.7	58.0	18.36	2	57	99.4	12.0	18.00	2	7	1.6	52.6
17.12	7	32	93.3	0.2	17.36	7	38	94.6	0.9	17.49	4	42	95.7	6.2	18.41	2	57	99.4	12.4	18.15	2	7	1.6	54.6
15.09	11	32	93.3	6.2	17.58	2	37	94.6	4.4	17.31	7	43	95.8	58.0	18.60	2	58	99.5	53.6	16.15	8	7	1.6	12.9
16.90	6	32	93.3	6.4	17.32	6	38	94.6	6.7	19.04	2	43	95.8	59.4	18.17	2	58	99.5	10.2	18.14:	2	7	1.7	52.4
18.54	2	32	93.4	58.1	15.32	11	38	94.6	6.9	12.74	14	43	95.8	0.1	17.36	6	59	99.6	52.6	18.24	2	7	1.7	12.1
18.51	2	33	93.4	59.4	16.57	7	38	94.7	56.6	18.79	2	42	95.8	3.1	17.70	2	59	99.6	53.0	16.92	7	8	1.8	52.2
18.58	2	33	93.4	1.9	13.94	14	38	94.7	4.6	18.38	2	43	95.8	5.0	17.92	2	58	99.6	11.0	18.60	2	7	1.8	10.2
17.26	5	33	93.4	2.8	18.80	2	39	94.8	56.6	15.63	10	42	95.8	5.9	15.85	9	58	99.6	13.4	17.13	7	7	1.8	10.9
18.41	2	33	93.4	3.6	16.98	7	38	94.8	0.5	17.12	7	43	95.8	8.5	17.88	2	59	99.7	53.6	15.82	9	7	1.8	11.2
18.63	2	34	93.6	59.2	16.96	7	38	94.8	3.2	18.00	2	42	95.8	8.6	18.64	2	59	99.7	54.4	18.26	2	7	1.8	12.2
17.46	4	34	93.6	0.0	17.52	6	38	94.8	3.4	17.92	2	42	95.8	10.6	18.04	2	59	99.8	52.5	14.23	14	8	1.9	10.4
17.43	4	33	93.6	0.4	17.61	4	39	94.8	4.0	18.48	2	43	95.9	57.2	16.55	7	59	99.8	52.6	17.94	2	8	1.9	12.4
18.45	2	33	93.6	2.6	18.52	2	38	94.8	4.8	18.08	2	43	95.9	58.6	18.31	2	59	99.8	53.8	18.08	2	8	2.0	52.2
16.97	7	34	93.6	3.7	18.80	2	38	94.8	7.7	18.75	2	43	95.9	4.0	18.44	2	59	99.8	54.8	18.10	2	8	2.0	53.3
18.60	2	33	93.6	4.2	17.92	2	38	94.8	8.2	17.40	6	43	95.9	4.6	18.80	2	59	99.8	13.0	18.54	2	8	2.0	55.0
17.04	7	34	93.6	6.4	17.32	6	38	94.8	9.0	18.95	2	43	96.0	56.7	13.31	14	59	99.8	13.4	18.02	2	8	2.0	11.0
17.80	2	33	93.6	7.4	15.76	9	39	94.9	2.3	17.38	2	43	96.0	3.6	18.28	2	60	99.9	53.8	17.75	2	8	2.0	11.8
16.32	7	33	93.6	8.2	17.40	6	39	94.9	3.1	17.55	2	43	96.0	10.8	18.11	2	60	99.9	10.8	17.20	7	8	2.0	13.1
17.12	7	34	93.7	2.3	17.10	7	39	94.9	7.2	17.86	2	44	96.2	10.8	17.15	7	60	0.0	53.9	17.43	4	8	2.0	13.7
18.19	2	34	93.7	2.7	18.04	2	39	94.9	7.4	18.72	2	46	96.6	11.2	17.84	2	60	0.0	54.3	17.94	2	9	2.1	12.0
16.32	8	34	93.7	5.6	17.45	6	39	94.9	7.8	17.07	6	48	97.0	53.7	18.79	2	60	0.0	10.7	17.21	7	9	2.1	13.4
17.16	7	35	93.8	57.4	17.02	7	39	94.9	9.6	18.27	2	48	97.0	10.1	18.81	2	60	0.0	12.2	18.31	2	9	2.2	53.3
17.06	7	34	93.8	58.6	18.32	2	40	95.0	56.8	17.32	6	48	97.0	10.5	17.11	7	60	0.0	13.4	17.32	6	9	2.2	54.6
18.37	2	35	93.8	0.8	19.04	2	39	95.0	59.3	16.31	8	48	97.2	10.8	16.62	7	60	0.1	53.8	18.86	2	9	2.2	10.4
18.16	2	34	93.8	1.6	18.42	2	40	95.0	3.6	16.45	7	49	97.4	10.8	18.34	2	61	0.2	54.4	18.24	2	10	2.3	10.4
17.41	6	34	93.8	2.0	17.42	4	39	95.0	7.5	18.00	2	49	97.4	11.0	18.06	2	61	0.2	10.6	16.63	8	10	2.3	11.2
17.17	7	34	93.8	2.4	18.13	2	39	95.0	9.0	18.06	2	50	97.6	10.4	12.85	14	61	0.2	13.6	17.36	6	10	2.4	52.4
17.52	4	34	93.8	3.4	18.52	2	39	95.0	9.8	18.70	2	50	97.7	53.3	18.72	2	61	0.3	10.0	17.14	7	10	2.4	14.0
17.37	6	34	93.8	6.2	18.50	2	40	95.1	55.6	16.47	7	50	97.7	54.8	18.90	2	61	0.3	12.0	18.65	2	10	2.5	11.4
17.21	7	35	93.9	4.0	17.40	6	40	95.1	4.6	18.06	2	51	97.8	11.3	14.35	11	62	0.4	53.0	16.96	7	11	2.6	52.7
17.10	7	35	93.9	5.7	18.50	2	40	95.1	5.8	15.19	10	51	97.9	53.0	16.25	8	61	0.4	10.2	18.64	2	11	2.6	52.8
16.38	8	35	93.9	7.0	18.74	2	40	95.1	9.6	18.22	2	52	98.1	11.3	18.59	2	61	0.4	12.4	18.31	2	11	2.6	10.4
16.14	9	35	93.9	8.3	18.74	2	40	95.2	55.9	18.60	2	53	98.2	54.8	18.22	2	62	0.5	53.4	17.71	4	11	2.6	11.2
18.36	2	35	94.0	0.8	15.68	10	40	95.2	56.4	16.75	7	52	98.2	10.4	18.48	2	62	0.5	10.3	17.96	2	11	2.6	12.8
18.02	2	35	94.0	2.7	18.62	2	40	95.2	57.6	18.65	2	52	98.2	10.6	17.43	6	62	0.6	12.4	18.30	2	11	2.6	13.3
16.82	7	35	94.0	5.4	18.39	2	40	95.2	58.5	17.97	2	53	98.2	11.4	18.72	2	62	0.6	12.8	17.94	2	11	2.6	13.5
18.24	2	35	94.0	7.6	18.77	2	40	95.2	59.0	18.02	2	53	98.4	11.1	17.23	7	63	0.7	52.3	18.44	2	11	2.7	53.5
16.22	8	36	94.1	58.9	18.75	2	40	95.2	1.1	17.04	6	53	98.4	11.5	18.83	2	63	0.7	11.6	18.44	2	12	2.8	52.8

25 prec. + $68^s.2$, + 2′ 32″

301s—360s				
Mag.		α 11^m	x	y+60′ / y
		s	′	′
18.54	2	12	2.8	53.2
17.54	2	12	2.8	11.6
18.32	2	11	2.8	12.2
17.92	2	12	2.9	10.2
14.58	12	12	2.9	11.4
17.04	7	12	3.0	13.6
12.51	13	13	3.1	13.2
17.20	7	13	3.2	52.8
18.44	2	13	3.2	53.4
18.40	2	13	3.2	53.8
17.88	2	13	3.2	13.2
16.99	7	14	3.4	52.2
18.08	2	14	3.4	10.1
18.29	2	15	3.6	52.6
17.52	6	15	3.6	53.6
16.74	8	15	3.6	10.4
18.34	2	15	3.6	12.6
18.92	2	15	3.7	10.6
17.46	6	15	3.7	10.8
18.78	2	15	3.7	11.7
15.88	10	15	3.7	12.4
17.25	7	16	3.8	12.1
18.04	2	17	4.0	11.3
15.43	11	17	4.2	51.8
18.74	2	17	4.2	54.1
18.23	2	17	4.2	10.4
18.68	2	17	4.2	11.2
17.36	6	17	4.2	13.3
16.03	9	18	4.3	11.0
17.23	5	18	4.3	12.5
17.23	6	18	4.4	52.6
17.86	2	18	4.4	13.0
16.62	8	19	4.5	53.9
16.12	9	19	4.5	12.2
18.86	2	19	4.5	13.9
17.86	2	19	4.5	14.0
17.56	2	19	4.6	10.4
16.92	7	19	4.6	12.8
18.06	2	19	4.6	14.0
16.97	7	19	4.7	54.9
18.39	2	20	4.8	11.2
18.38	2	20	4.8	12.2
18.68	2	20	4.8	12.9
18.70	2	20	4.8	14.0
18.49	2	21	5.0	52.9
18.62	2	21	5.0	53.2
18.42	2	21	5.0	11.2
18.79	2	21	5.0	11.3
15.56	10	21	5.0	14.2
17.82	2	21	5.1	53.9
18.38	2	21	5.1	12.4
18.19	2	22	5.2	51.9
16.81	7	22	5.2	10.4
18.24	2	22	5.3	12.5
17.72	4	22	5.3	12.6
18.52	2	23	5.4	52.1
17.30	6	23	5.4	52.4
18.40	2	23	5.4	53.0
17.40	6	22	5.4	54.1
18.30	2	22	5.4	12.2

361s—420s				
Mag.		α 11^m	x	y+60′ / y
		s	′	′
16.95	7	22	5.4	13.0
16.81	7	22	5.4	13.7
16.65	8	23	5.5	10.6
17.37	6	23	5.6	54.2
18.76	2	23	5.6	54.6
17.23	7	23	5.6	11.0
16.76	7	23	5.6	11.4
18.18	2	23	5.6	11.6
18.01	2	24	5.7	10.8
19.00	2	24	5.8	52.6
18.40	2	24	5.8	53.5
17.71	2	24	5.8	11.1
17.85	2	24	5.8	13.6
18.50	2	24	5.9	54.7
16.79	3	25	6.0	54.1
17.28	6	25	6.0	12.4
15.53	10	25	6.0	13.1
13.96	14	25	6.1	53.7
18.15	2	26	6.2	52.2
18.51	2	26	6.2	10.6
18.02	2	25	6.2	13.0
17.23	7	25	6.2	13.2
18.35	2	25	6.2	13.6
17.18	7	26	6.2	13.9
16.62	8	26	6.3	10.1
15.75	10	26	6.3	11.2
16.30	8	26	6.3	11.4
17.09:	7	27	6.4	51.8
17.88	2	27	6.4	54.8
18.06	2	27	6.4	11.5
16.91	7	27	6.4	11.9
17.80	2	27	6.5	53.6
17.29	7	27	6.6	54.5
17.08	7	28	6.6	54.6
18.48	2	27	6.6	10.3
18.62	2	27	6.6	12.8
17.17	7	29	7.0	52.3
18.48	2	29	7.0	10.3
18.22	2	29	7.0	10.4
18.43	2	29	7.0	10.8
16.11	9	29	7.0	12.2
17.03	7	29	7.0	12.4
17.31	6	30	7.2	54.0
18.48	2	30	7.2	10.6
17.84	2	30	7.2	11.0
18.35	2	30	7.2	12.6
18.01	2	30	7.2	12.8
17.21	7	31	7.4	53.5
17.64	2	31	7.4	12.6
17.29	7	32	7.6	54.2
17.90	2	32	7.6	11.6
17.13	7	32	7.6	12.2
18.00	2	32	7.6	12.4
17.07	7	31	7.6	13.1
17.60	2	32	7.7	11.6
18.34	2	33	7.8	52.4
18.42	2	32	7.8	10.9
17.98	2	32	7.8	11.0
18.22	2	32	7.8	12.2
15.92	8	33	8.0	52.9

421s—480s				
Mag.		α 11^m	x	y+60′ / y
		s	′	′
17.98	2	33	8.0	12.4
18.06	2	33	8.0	12.6
17.32	7	34	8.1	10.4
16.98	7	34	8.1	11.6
18.60	2	34	8.2	10.4
18.22	2	34	8.2	11.9
18.38	2	34	8.3	10.4
18.17	2	35	8.4	54.1
16.12	8	35	8.4	54.2
17.31	7	35	8.4	54.6
18.98	2	35	8.4	55.0
15.82	10	35	8.5	11.4
17.21	4	36	8.6	54.6
18.01	2	35	8.6	11.8
18.28	2	35	8.6	11.9
16.10	9	35	8.6	12.4
17.30	7	36	8.7	10.5
17.38	6	37	8.8	54.2
16.00	8	36	8.8	10.2
18.11	2	36	8.8	11.3
18.06	2	37	8.9	11.2
18.66	2	37	8.9	12.5
18.60	2	38	9.1	11.0
18.40	2	38	9.1	11.6
17.07	7	38	9.2	10.8
18.59	2	39	9.4	10.2
17.65	4	39	9.4	10.9
17.19	6	39	9.4	12.2
17.98	2	40	9.6	12.2
15.71	9	40	9.7	53.2
18.48	2	40	9.8	10.8
17.26	4	41	10.0	12.0
18.00	2	42	10.2	10.8
18.88	2	42	10.2	11.4
18.65	2	42	10.2	11.5
17.70	2	42	10.2	11.8
17.62	2	42	10.2	12.2
18.38	2	43	10.3	11.5
17.32	7	43	10.4	54.4
18.56	2	43	10.4	10.8
17.20	7	43	10.4	11.4
17.71	2	43	10.4	12.0
18.83	2	44	10.6	10.4
17.54	2	44	10.6	11.6
18.80	2	46	11.0	57.6
17.33	7	46	11.0	59.8
18.04	2	45	11.0	10.2
16.91	7	46	11.1	57.8
18.48	2	46	11.1	5.0
17.35	7	46	11.1	6.8
15.35	10	46	11.1	11.2
18.42	2	47	11.2	59.9
18.42	2	47	11.2	2.6
18.72	2	46	11.2	9.8
18.14	2	47	11.2	10.0
15.77	9	46	11.2	10.7
18.33	2	47	11.3	57.2
17.20	5	47	11.3	8.0
14.88	12	47	11.3	8.8
18.58	2	47	11.4	57.9

481s—540s				
Mag.		α 11^m	x	y+60′ / y
		s	′	′
17.38	6	47	11.4	0.2
17.43	7	47	11.4	0.7
16.71	8	47	11.4	3.0
17.47	6	47	11.4	7.0
15.84	7	48	11.5	11.2
17.42	6	48	11.6	1.9
18.31	2	48	11.6	5.4
16.54	8	48	11.6	5.8
17.28	7	48	11.6	6.2
10.76	8	48	11.6	7.2
18.22	2	48	11.6	7.4
14.69	11	48	11.7	58.0
17.92	2	48	11.7	59.2
18.30	2	48	11.7	2.7
18.42	2	49	11.8	2.2
17.51	6	49	11.8	2.4
18.20	2	49	11.8	7.1
18.90	2	49	11.9	55.4
17.41	7	49	11.9	6.6
18.38	2	49	11.9	7.8
17.57	4	50	12.0	56.6
17.94	2	50	12.0	0.0
18.05	2	50	12.0	1.6
17.08	7	49	12.0	2.9
18.01	2	49	12.0	6.9
16.59	8	50	12.0	7.8
17.35	7	50	12.0	8.4
16.09	9	50	12.0	9.1
17.37	6	50	12.1	55.4
17.33	7	50	12.1	1.2
18.07	2	50	12.1	6.3
18.65	2	51	12.2	56.0
18.13	2	50	12.2	0.2
17.24	7	51	12.2	2.2
17.87	2	51	12.2	5.4
18.26	2	51	12.2	6.0
17.90	2	51	12.2	10.3
14.80	12	51	12.3	1.0
17.19	7	51	12.3	1.4
17.16	7	51	12.3	3.7
15.78	10	51	12.3	9.6
14.82	11	52	12.4	4.6
18.20	2	51	12.4	8.4
16.78	7	52	12.5	8.2
18.22	2	52	12.6	59.4
18.18	2	52	12.6	5.0
17.48	6	52	12.6	6.6
18.16	2	52	12.6	9.0
18.32	2	53	12.8	59.1
18.27	2	53	12.8	2.0
17.10	7	53	12.8	8.9
18.42	2	53	12.9	57.9
16.06	10	53	12.9	8.7
18.08	2	54	13.0	1.2
18.19	2	54	13.0	7.0
17.92	2	54	13.1	58.4
18.57	2	54	13.1	2.6
14.74	12	54	13.1	3.4
16.37	9	54	13.1	3.8
18.90	2	54	13.1	6.0

541s—588s				
Mag.		α 11^m	x	y+60′ / y
		s	′	′
13.28	14	54	13.1	6.6
17.44	3	54	13.1	9.0
17.39	6	55	13.2	57.9
18.48	2	55	13.2	59.2
18.24	2	55	13.2	59.4
18.02	2	55	13.2	0.0
15.97	9	55	13.2	1.4
18.58	2	54	13.2	2.7
17.27	7	55	13.2	6.3
17.13	7	55	13.3	3.4
15.36	10	55	13.3	6.6
17.29	6	56	13.4	59.8
17.17	7	56	13.4	0.2
18.22	2	55	13.4	4.0
18.05	2	55	13.4	6.4
18.42	2	55	13.4	6.9
17.79	2	55	13.4	7.7
18.71	2	56	13.6	58.6
18.54	2	57	13.8	59.6
16.61	7	57	13.8	0.8
18.36	2	57	13.8	4.4
16.91	7	57	13.8	5.4
18.39	2	57	13.8	6.2
18.13	2	57	13.8	6.3
17.22	7	58	13.9	7.6
18.27	2	58	14.0	58.2
18.18	2	58	14.0	1.1
18.42	2	58	14.0	3.0
18.13	2	58	14.0	5.4
18.04	2	58	14.1	4.4
15.31:	11	58	14.1	6.2
16.96	7	58	14.1	6.4
17.17	7	58	14.1	7.2
18.20	2	59	14.2	59.8
17.28	6	59	14.2	4.0
18.28	2	59	14.2	6.2
18.50	2	59	14.3	1.3
18.66	2	59	14.3	1.6
18.01	2	59	14.3	2.3
18.31	2	59	14.3	4.2
17.48	2	60	14.4	5.2
18.24	2	60	14.4	6.4
17.22	7	61	14.6	0.4
18.47	2	61	14.6	1.4
16.95	7	60	14.6	2.7
17.14	7	61	14.7	4.9
17.40	2	61	14.8	0.8
17.74	2	62	15.0	3.0

25 prec. + 68ˢ.2, + 2′ 34″

Area 88. Center for 1900: 20h 10m + 15° 10′ (15′ × 15′)

1—60			
Mag.	α 10^{m}	x	y+10′
	s	′	′ ″
18.89 1	24.8	6.00	12 01
17.18 4	24.8	6.00	6 16
17.86 3	24.9	6.02	10 10
16.87 7	24.9	6.02	1 59
18.62 3	25.0	6.04	13 10
17.57 3	25.0	6.05	11 07
17.74 3	25.0	6.05	3 00
18.21 3	25.0	6.05	3 11
18.49 3	25.1	6.06	5 51
18.66 3	25.1	6.06	8 24
16.81 9	25.1	6.07	0 40
17.83 3	25.2	6.08	10 42
18.06 2	25.2	6.09	1 41
15.34 11	25.3	6.10	8 51
18.64 3	25.3	6.10	7 44
17.35 3	25.3	6.10	6 41
17.35 3	25.3	6.11	6 30
17.94 3	25.4	6.12	11 38
17.76 3	25.4	6.13	10 06
17.40 3	25.4	6.13	9 41
18.25 3	25.5	6.14	6 25
18.89? 1	25.5	6.14	3 45
16.13 9	25.5	6.14	2 09
17.49 3	25.5	6.15	10 52
18.29 3	25.5	6.15	9 31
18.40 2	25.5	6.16	9 57
18.58 3	25.6	6.18	5 04
16.44 9	25.7	6.19	13 19
18.58 3	25.7	6.21	13 09
13.98 14	25.7	6.21	11 42
18.42 3	25.7	6.21	10 16
18.52 3	25.7	6.21	0 35
16.75 9	25.7	6.21	1 05
17.27 3	25.9	6.24	6 17
18.69 2	25.9	6.25	8 34
18.98 1	25.9	6.25	7 03
18.89 1	25.9	6.25	6 34
18.27 3	25.9	6.25	3 57
17.99 3	25.9	6.26	11 09
18.62 3	25.9	6.26	5 45
16.85 8	26.0	6.27	0 42
18.57 3	26.0	6.28	6 49
18.48 3	26.1	6.30	0 58
18.10 3	26.1	6.30	1 23
17.97 3	26.1	6.30	9 46
18.61 3	26.1	6.31	10 01
18.26 3	26.2	6.33	1 34
14.66 13	26.3	6.34	8 12
18.98 1	26.3	6.35	7 16
18.65 3	26.3	6.36	6 59
16.77 9	26.3	6.36	4 01
18.52 3	26.4	6.38	15 04
18.45 3	26.5	6.39	13 18
18.62 3	26.5	6.39	3 20
18.00 3	26.5	6.41	6 19
16.30 9	26.6	6.42	1 14
17.46 3	26.6	6.42	13 51
17.45 3	26.6	6.43	4 22
13.59 17	26.6	6.43	4 44
17.18 5	26.6	6.43	9 54

61—120			
Mag.	α 10^{m}	x	y+10′
	s	′	′ ″
18.13 1	26.7	6.44	0 13
16.89 8	26.7	6.44	2 11
18.05 3	26.7	6.45	6 26
18.12 2	26.7	6.46	0 16
17.69 3	26.7	6.46	14 00
18.59 3	26.8	6.47	5 49
18.57 3	26.8	6.47	4 58
17.89 3	26.8	6.48	2 50
13.73 15	26.9	6.51	12 00
17.63 3	27.0	6.52	7 31
18.89 1	27.0	6.52	3 43
18.89 1	27.1	6.55	2 13
18.59 3	27.1	6.55	5 29
15.49 10	27.1	6.55	8 17
18.06 3	27.1	6.56	7 39
17.13 6	27.2	6.58	11 06
16.60 9	27.2	6.58	0 04
18.44 2	27.3	6.60	5 24
17.71 3	27.3	6.60	5 07
18.30 1	27.4	6.62	6 19
17.16 3	27.4	6.62	0 47
18.59 3	27.4	6.63	2 06
18.32 3	27.4	6.63	10 01
17.26 6	27.4	6.63	12 26
17.71 3	27.4	6.63	13 42
17.53 5	27.4	6.63	6 33
16.58 9	27.5	6.65	10 26
16.81 8	27.6	6.67	6 43
18.39 3	27.6	6.67	5 32
18.66 3	27.6	6.67	9 45
17.62 2	27.6	6.67	5 15
18.18 3	27.7	6.71	0 50
16.77 7	27.8	6.73	5 30
18.19 3	27.9	6.74	5 20
17.55 3	27.9	6.74	14 05
18.26 2	27.9	6.74	13 40
18.05 3	27.9	6.74	13 07
18.03 3	27.9	6.74	12 12
16.46 9	27.9	6.74	2 40
18.43 3	27.9	6.75	4 41
16.48 8	27.9	6.75	7 21
18.66 3	28.0	6.76	9 54
17.11 6	28.1	6.78	12 31
15.12 11	28.1	6.79	12 55
16.82 8	28.3	6.83	12 38
17.21 5	28.3	6.83	8 08
15.72: 10	28.3	6.83	1 28
15.77 10	28.4	6.84	1 38
18.81 1	28.4	6.85	2 29
18.41 3	28.4	6.86	3 35
18.72 1	28.4	6.86	7 05
17.75 3	28.5	6.87	3 09
14.17 14	28.5	6.87	13 10
18.26 3	28.5	6.87	12 17
16.06 7	28.5	6.87	14 55
18.56 3	28.5	6.88	5 45
16.90 6	28.6	6.90	11 40
18.52 3	28.6	6.90	0 27
18.70 3	28.6	6.91	8 19
18.69 3	28.7	6.92	5 48

121—180			
Mag.	α 10^{m}	x	y+10′
	s	′	′ ″
18.71 3	28.8	6.94	4 50
17.40 5	28.8	6.94	11 49
18.32 2	28.8	6.96	13 22
17.53 3	28.8	6.96	3 45
18.70 2	28.9	6.97	13 00
16.87 8	28.9	6.97	7 06
15.23 12	28.9	6.98	2 30
18.89 1	29.1	7.02	5 15
18.60 3	29.1	7.02	12 34
18.13 3	29.1	7.03	2 33
16.92 8	29.2	7.05	6 40
17.34 5	29.2	7.06	6 20
18.44 3	29.2	7.06	1 15
18.37 3	29.3	7.07	5 49
18.36 3	29.3	7.07	11 04
18.75 3	29.3	7.07	10 45
17.08 3	29.4	7.09	0 42
18.36 2	29.4	7.09	7 09
18.38 3	29.4	7.09	6 00
18.05 3	29.4	7.10	12 02
18.64 2	29.4	7.10	10 58
18.33 3	29.4	7.11	5 03
17.12 7	29.5	7.12	7 58
18.43 3	29.5	7.12	4 46
18.76 2	29.5	7.12	14 01
15.99 9	29.6	7.14	6 38
16.80 9	29.6	7.15	4 05
18.55 3	29.6	7.16	8 47
18.70 2	29.7	7.17	0 19
16.99 8	29.7	7.17	2 27
18.06 3	29.7	7.18	8 40
18.30 3	29.7	7.18	8 01
17.11 4	29.7	7.18	1 26
16.84 9	29.8	7.20	7 41
15.92 10	29.8	7.20	5 27
17.69 3	29.9	7.23	4 20
18.23 3	30.0	7.24	12 00
17.51 3	30.0	7.26	12 07
17.62 3	30.0	7.26	5 15
16.96 8	30.1	7.27	10 08
18.03 3	30.2	7.30	5 19
18.89 1	30.2	7.31	12 37
17.06 7	30.2	7.31	8 01
18.38 3	30.2	7.31	7 51
18.62 3	30.3	7.32	8 37
15.76 10	30.3	7.32	2 28
18.74 3	30.4	7.34	0 32
17.89 3	30.4	7.34	13 01
18.10 3	30.4	7.35	0 43
17.81 3	30.4	7.36	10 53
18.81 2	30.5	7.38	4 23
17.00 7	30.6	7.39	4 11
18.71 2	30.6	7.39	11 12
18.68 3	30.6	7.40	5 54
18.74 2	30.6	7.40	7 50
18.89 1	30.6	7.40	7 38
17.63 3	30.6	7.41	6 00
18.66 3	30.6	7.41	12 13
15.65 11	30.6	7.41	13 16
16.57 9	30.7	7.42	14 52

181—240			
Mag.	α 10^{m}	x	y+10′
	s	′	′ ″
18.53 3	30.7	7.42	3 26
17.75 3	30.8	7.44	6 11
18.67 3	30.9	7.46	5 40
18.89 1	30.9	7.47	13 23
18.47 3	31.0	7.48	12 53
12.28 13	31.1	7.49	14 15
17.01 8	31.1	7.51	10 12
18.38 3	31.1	7.51	5 02
16.40 9	31.1	7.51	3 12
18.64 1	31.3	7.54	6 33
18.42 2	31.3	7.56	7 32
18.67 2	31.3	7.56	0 27
17.22 5	31.3	7.56	11 19
18.47 3	31.4	7.57	5 55
17.00 8	31.4	7.57	10 10
18.71 2	31.4	7.58	1 07
17.99 3	31.5	7.59	3 56
18.65 3	31.5	7.60	5 27
18.43 3	31.5	7.61	4 39
17.13 5	31.7	7.64	2 59
18.35 3	31.8	7.67	4 12
16.05 9	31.8	7.67	5 23
18.98 1	31.8	7.68	10 18
18.89 1	31.9	7.70	0 48
18.60 3	31.9	7.71	4 39
18.04 3	32.0	7.72	3 43
18.89 1	32.1	7.74	1 56
18.50 3	32.1	7.75	12 41
18.43 3	32.2	7.78	2 06
18.80 2	32.3	7.79	11 21
18.64 3	32.3	7.79	3 50
18.60 3	32.3	7.79	4 45
18.89 1	32.3	7.80	2 49
16.92 6	32.3	7.80	2 25
14.45 13	32.4	7.82	8 14
17.21 4	32.4	7.82	8 10
17.14 5	32.4	7.82	7 06
16.42 8	32.5	7.84	6 41
16.47 9	32.5	7.84	12 21
17.91 2	32.6	7.87	4 57
18.46 3	32.6	7.87	4 11
18.22 2	32.7	7.89	2 57
12.21 13	32.7	7.90	2 27
18.64 2	32.7	7.91	11 28
17.36 5	32.8	7.92	10 06
18.59 3	32.8	7.92	13 49
18.64 3	32.8	7.93	3 53
18.77 3	32.9	7.95	6 56
18.57 3	32.9	7.95	7 30
17.15 5	33.0	7.97	1 18
18.52 2	33.0	7.98	8 12
18.85 2	33.1	7.99	11 43
17.93 3	33.1	8.00	0 46
18.98 1	33.1	8.01	5 20
17.90 2	33.1	8.01	5 11
17.90 3	33.1	8.01	8 40
17.25 5	33.3	8.04	4 43
16.67 9	33.3	8.05	4 12
17.74 3	33.3	8.05	7 25
16.81 9	33.3	8.06	6 37

241—300			
Mag.	α 10^{m}	x	y+10′
	s	′	′ ″
14.56 13	33.3	8.06	9 55
18.62 2	33.4	8.07	1 28
17.93 3	33.4	8.07	15 00
18.98 1	33.5	8.09	8 29
18.18 3	33.5	8.10	3 22
18.12 3	33.5	8.10	1 44
18.50 2	33.5	8.10	14 22
18.79 2	33.5	8.11	11 42
17.51 3	33.5	8.11	11 52
18.42 3	33.6	8.12	5 37
16.76 9	33.6	8.13	0 00
18.40 3	33.7	8.14	1 04
17.89 3	33.7	8.14	6 23
16.61 9	33.7	8.15	7 53
17.65 3	33.8	8.17	3 22
17.08 4	33.8	8.18	2 35
18.43 3	33.8	8.18	5 06
15.07 11	33.8	8.18	12 09
18.59 3	33.9	8.19	13 48
18.44 2	33.9	8.20	1 31
18.64 1	33.9	8.21	3 02
17.73 3	33.9	8.21	14 04
18.40 2	34.0	8.22	6 21
17.07 6	34.0	8.23	4 43
17.26 3	34.1	8.24	2 12
15.68 9	34.1	8.24	7 14
17.57 3	34.1	8.25	10 37
16.50 9	34.2	8.26	8 55
17.67 3	34.2	8.27	6 14
17.85 3	34.2	8.27	14 39
18.66 2	34.2	8.27	1 21
18.64 2	34.3	8.29	4 51
17.72 3	34.4	8.30	7 09
18.65 3	34.5	8.32	8 13
17.53 3	34.5	8.33	4 25
18.26 3	34.5	8.33	10 15
14.12 14	34.6	8.35	14 31
18.62 2	34.6	8.35	8 13
18.67 3	34.6	8.36	8 30
17.64 3	34.7	8.37	3 03
17.57 3	34.8	8.40	1 32
15.80 10	34.8	8.40	8 43
14.60 12	34.8	8.41	5 12
16.74 8	34.8	8.41	10 51
18.57 3	34.9	8.43	9 30
18.20 3	34.9	8.43	4 32
16.11 9	34.9	8.43	10 08
18.62 3	35.0	8.45	14 09
18.14 2	35.2	8.49	1 15
18.91 2	35.2	8.50	6 50
18.17 3	35.2	8.51	0 27
17.79 3	35.2	8.51	4 32
18.29 3	35.2	8.51	14 30
18.27 3	35.3	8.52	1 08
16.97 8	35.4	8.54	3 42
17.21 7	35.4	8.54	5 00
17.65 3	35.4	8.54	14 57
15.24 11	35.5	8.57	12 13
19.06 1	35.5	8.57	9 04
18.09 3	35.5	8.57	2 28

25 prec. + $69^{\mathrm{s}}.3$, + 4′ 30″

301—360					361—420					421—480					481—540					541—600				
Mag.		α 10^{m}	x	$y+10'$	Mag.		α 10^{m}	x	$y+10'$	Mag.		α 10^{m}	x	$y+10'$	Mag.		α 10^{m}	x	$y+10'$	Mag.		α 10^{m}	x	$y+10'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
18.18	3	35.5	8.58	3 43	18.76	2	37.9	9.14	14 59	18.71	3	40.2	9.70	7 24	18.12	3	42.8	10.35	3 23	19.15	1	45.3	10.96	7 29
18.76	3	35.6	8.59	8 42	18.62	2	37.9	9.15	11 26	16.41	9	40.2	9.71	8 26	17.35	5	42.9	10.36	11 11	17.66	5	45.3	10.96	7 58
16.76	8	35.6	8.61	4 33	18.02	2	37.9	9.16	10 17	18.26	3	40.2	9.71	0 12	18.16	3	43.1	10.40	13 18	19.15	1	45.3	10.96	8 07
17.42	5	35.7	8.62	7 01	18.80	3	37.9	9.16	8 10	17.62	3	40.4	9.74	12 10	17.42	5	43.3	10.44	14 06	18.52	3	45.3	10.96	4 15
18.49	3	35.8	8.64	13 05	18.64	2	38.0	9.17	5 43	19.06	1	40.4	9.74	11 31	18.38	1	43.3	10.45	2 57	14.01	14	45.5	10.99	11 02
16.96	9	35.8	8.65	4 41	17.67	3	38.0	9.18	13 27	18.44	3	40.5	9.77	1 09	17.34	3	43.3	10.46	7 31	16.19	9	45.5	10.99	11 48
18.68	3	35.8	8.66	6 56	18.80	3	38.1	9.20	10 51	18.98	1	40.6	9.79	2 19	18.71	3	43.4	10.47	13 05	17.20	5	45.5	10.99	9 00
18.46	3	35.9	8.68	14 12	16.07	9	38.1	9.20	7 54	17.45	3	40.7	9.82	9 26	18.56	2	43.4	10.47	14 58	18.88	3	45.5	11.00	9 48
17.91w	2	36	8.7	4 06	18.98	1	38.1	9.20	3 59	18.27	3	40.8	9.84	6 24	17.59	3	43.4	10.48	2 31	17.65	5	45.5	11.00	10 29
17.47	5	36.0	8.71	13 03	18.48	2	38.1	9.20	3 41	18.46	3	40.8	9.84	1 40	15.55	11	43.5	10.49	14 49	18.73	2	45.5	11.01	3 10
16.16	9	36.0	8.71	12 06	17.78	1	38.1	9.20	3 01	15.03	12	40.8	9.85	14 26	18.67	3	43.5	10.50	7 35	18.52	3	45.6	11.02	14 02
18.45	2	36.2	8.74	11 20	17.79	3	38.1	9.20	2 07	16.42	9	40.8	9.86	14 36	18.46	3	43.6	10.52	11 18	18.79	2	45.7	11.04	3 20
15.16	12	36.2	8.75	3 00	17.93	2	38.2	9.22	11 55	14.51	13	40.9	9.87	12 32	17.99	2	43.6	10.53	2 36	16.60	7	45.7	11.05	4 17
18.89	1	36.2	8.75	3 27	18.74	2	38.3	9.25	1 46	16.05:	9	40.9	9.88	13 50	18.65	3	43.7	10.54	12 56	17.57	3	45.8	11.06	2 39
17.59	3	36.3	8.77	3 03	17.60	3	38.3	9.26	3 27	17.79	5	41.0	9.89	10 19	18.78	3	43.7	10.54	11 22	18.98	2	45.8	11.06	6 55
17.03	8	36.3	8.77	4 01	18.76	2	38.3	9.26	14 59	16.39	9	41.0	9.89	8 45	18.28	3	43.7	10.56	8 05	17.71	3	46.0	11.09	5 57
15.87	9	36.3	8.77	8 04	18.89	2	38.4	9.28	11 36	18.53	3	41.0	9.91	4 51	18.24	3	43.7	10.56	8 14	18.40	3	46.0	11.10	13 50
17.25	5	36.3	8.77	12 55	17.53	3	38.5	9.29	0 47	18.41	3	41.1	9.92	7 16	18.57	3	43.7	10.56	10 31	17.72	3	46.1	11.12	5 15
17.60	3	36.3	8.77	12 35	18.34	2	38.5	9.29	5 51	18.98	1	41.1	9.92	13 00	18.06	3	43.7	10.56	13 55	18.89	3	46.1	11.13	10 15
18.98	1	36.5	8.83	12 01	18.42	2	38.7	9.34	5 04	18.74	3	41.1	9.93	11 48	18.58	3	43.8	10.57	1 48	17.36	3	46.2	11.16	0 42
15.15	11	36.5	8.83	7 38	16.18	9	38.7	9.34	6 01	16.07	9	41.2	9.94	0 20	17.25	5	43.8	10.58	2 46	18.53	3	46.2	11.16	4 14
18.89	2	36.7	8.87	5 27	17.62	3	38.7	9.34	11 48	17.93	3	41.2	9.94	5 06	18.26	3	43.9	10.61	1 11	17.40	5	46.2	11.16	10 51
15.50	11	36.7	8.87	10 38	18.30	2	38.7	9.35	5 38	17.67	3	41.2	9.96	4 37	16.00	10	44.0	10.62	13 14	17.02	7	46.3	11.18	12 51
18.58	2	36.8	8.90	10 20	17.92	3	38.7	9.35	1 25	18.50	3	41.2	9.96	14 21	16.52	7	44.0	10.63	4 41	18.15	3	46.3	11.18	1 02
18.06	3	36.8	8.90	14 23	18.47	3	38.8	9.37	7 04	18.24	2	41.3	9.97	9 44	18.61	2	44.1	10.64	5 21	18.81	1	46.4	11.19	3 36
17.08	6	36.8	8.91	6 59	18.89	2	38.9	9.39	6 30	15.52	10	41.3	9.98	12 22	18.28	3	44.1	10.66	8 36	18.58	3	46.4	11.20	11 01
18.44	3	36.9	8.92	9 33	18.50	2	38.9	9.40	13 21	18.44	3	41.4	9.99	4 16	17.35	5	44.1	10.66	11 24	18.60	3	46.5	11.22	7 01
16.82	9	36.9	8.92	1 23	18.42	2	38.9	9.41	12 42	18.58	3	41.4	10.00	13 45	17.58	3	44.2	10.67	7 25	18.36	2	46.5	11.22	12 46
18.13	3	36.9	8.92	2 24	17.66	3	38.9	9.41	14 49	18.43	2	41.4	10.01	14 25	17.18	6	44.2	10.67	9 14	18.57	3	46.5	11.23	4 02
18.59	3	36.9	8.92	10 44	18.40	2	38.9	9.41	1 31	18.89	1	41.4	10.01	14 42	17.21	5	44.2	10.68	1 30	18.78	3	46.5	11.23	9 01
18.89	1	36.9	8.92	14 18	18.39	3	39.1	9.44	3 50	15.58	11	41.4	10.01	8 42	16.40	9	44.2	10.68	4 38	18.71	3	46.5	11.23	8 40
18.22	3	36.9	8.92	14 52	15.06	12	39.1	9.45	12 59	18.50	3	41.5	10.03	0 03	17.96	3	44.3	10.69	14 20	18.89	1	46.6	11.24	9 29
15.79	10	37.0	8.94	9 12	18.45	2	39.1	9.46	7 46	17.36	5	41.6	10.04	4 41	18.90	2	44.3	10.69	12 21	18.65	3	46.6	11.24	2 00
18.60	2	37.0	8.95	9 03	17.60	3	39.2	9.47	3 29	18.89	1	41.7	10.07	0 42	18.59	3	44.3	10.71	11 06	15.95	10	46.6	11.24	12 52
17.53	3	37.0	8.95	6 44	18.70	3	39.2	9.47	2 55	18.62	3	41.7	10.07	0 33	18.40	2	44.3	10.71	9 27	17.65	3	46.6	11.24	10 28
18.32	2	37.0	8.95	3 05	17.66	3	39.2	9.47	13 50	18.35	3	41.7	10.07	13 15	17.36	2	44.3	10.71	4 20	17.67	3	46.6	11.25	11 22
16.85	9	37.1	8.96	4 30	14.67	13	39.2	9.48	10 39	15.48	11	41.7	10.08	3 01	17.79	3	44.4	10.72	4 48	17.71	5	46.6	11.25	8 05
18.49	3	37.2	8.99	6 46	17.20	5	39.2	9.48	10 15	17.95	3	41.8	10.09	5 37	15.13	12	44.4	10.72	2 10	18.24	2	46.6	11.26	10 59
19.06	1	37.3	9.00	10 35	17.63	3	39.3	9.51	9 49	16.62	9	41.8	10.09	12 36	18.74	3	44.4	10.72	12 58	18.07	3	46.6	11.26	7 16
18.27	3	37.3	9.00	1 59	19.06	1	39.4	9.52	6 50	17.56	2	41.8	10.10	2 17	18.80	3	44.5	10.74	14 00	19.15	1	46.7	11.28	8 14
18.68	2	37.3	9.01	0 53	16.66	9	39.4	9.52	7 33	16.97	9	41.8	10.10	2 19	18.61	3	44.5	10.76	7 14	17.56	3	46.7	11.28	5 39
18.20	3	37.3	9.01	9 39	17.69	3	39.5	9.54	7 17	18.76	2	41.8	10.11	12 47	17.56	3	44.5	10.76	0 52	17.27	5	46.7	11.28	10 40
17.71	3	37.3	9.01	11 15	17.22	3	39.5	9.55	3 39	16.18	9	42.0	10.14	4 53	19.06	1	44.7	10.80	4 40	16.07	10	46.7	11.28	14 42
17.54	5	37.4	9.02	5 29	18.89	1	39.5	9.55	14 29	18.55	1	42.0	10.14	3 03	18.83	2	44.7	10.80	13 43	18.52	3	46.8	11.29	11 26
18.49	3	37.4	9.03	8 45	17.28	5	39.5	9.55	10 08	18.98	1	42.1	10.17	3 06	18.78	3	44.7	10.81	12 25	18.40	3	46.8	11.29	4 32
14.66	12	37.4	9.03	12 28	16.27	9	39.5	9.56	3 05	17.59	3	42.1	10.17	9 33	17.96	3	44.7	10.81	10 58	18.70	3	46.9	11.33	4 22
17.66	3	37.5	9.04	2 28	15.45	11	39.6	9.58	0 29	17.85	3	42.2	10.19	0 21	18.55	3	44.8	10.82	8 00	18.14	3	46.9	11.33	13 31
17.89	3	37.5	9.06	3 16	17.71	3	39.6	9.58	9 15	17.95	3	42.2	10.20	1 58	11.58	12	44.9	10.86	4 08	18.16	3	46.9	11.33	13 21
17.24	5	37.5	9.06	13 33	14.94	12	39.7	9.60	11 22	16.70	9	42.3	10.22	6 31	16.08	9	45.0	10.87	2 56	17.45	3	47.0	11.34	5 06
18.65	3	37.5	9.06	5 43	17.48	3	39.8	9.62	1 32	18.89	1	42.3	10.22	14 20	18.83	3	45.0	10.87	5 47	19.22	1	47.0	11.36	8 42
18.74	2	37.6	9.07	5 18	16.87	9	39.8	9.63	10 35	16.86	6	42.3	10.25	1 35	18.28	2	45.0	10.88	3 36	17.31	5	47.1	11.38	9 54
15.88	9	37.6	9.07	8 57	18.17	3	39.9	9.64	11 26	18.52	3	42.4	10.26	9 42	18.50	3	45.1	10.89	0 32	18.47	3	47.1	11.38	3 51
16.11	9	37.6	9.08	4 23	17.07	8	40.0	9.66	13 12	13.99	14	42.4	10.26	0 15	18.47	3	45.1	10.89	10 42	17.96	3	47.1	11.38	11 44
14.71	13	37.7	9.09	4 05	18.51	3	40.0	9.66	2 41	18.59	3	42.5	10.27	2 56	17.90	3	45.1	10.90	12 31	18.53	2	47.2	11.40	8 25
15.30	11	37.7	9.09	0 58	18.85	2	40.0	9.66	4 35	17.30	5	42.6	10.29	3 33	16.63	4	45.1	10.90	4 32	18.92	2	47.2	11.41	5 52
18.37	3	37.7	9.10	6 28	18.71	3	40.0	9.66	7 11	16.44	8	42.6	10.30	10 04	17.78	3	45.1	10.90	3 27	19.15	1	47.2	11.41	7 26
18.27	3	37.7	9.11	3 26	18.59	3	40.1	9.67	14 47	18.17	3	42.6	10.30	5 25	18.44	3	45.2	10.92	11 39	17.88	2	47.2	11.41	10 30
18.89	1	37.8	9.12	1 30	18.58	3	40.1	9.68	5 18	18.88	3	42.6	10.31	8 10	18.08	3	45.3	10.95	0 32	18.83	3	47.2	11.41	10 53
18.01	3	37.8	9.12	13 20	18.72	1	40.1	9.68	4 51	18.80	2	42.7	10.32	5 31	15.61	9	45.3	10.95	5 45	15.64	11	47.2	11.41	9 57
18.74	3	37.8	9.13	5 39	16.86	9	40.1	9.69	0 49	16.89	7	42.8	10.34	3 42	19.02	2	45.3	10.96	5 57	19.00	2	47.3	11.42	6 04

25 prec. + $69^{s}.3$, + 4′ 31″

601—660				661—720				721—780				781—840				841—900			
Mag.	α 10^m	x	$y+10'$	Mag.	α 10^m	x	$y+10'$	Mag.	α 10^m	x	$y+10'$	Mag.	α 10^m	x	$y+10'$	Mag.	α 10^m	x	$y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
18.71 3	47.4	11.44	6 11	15.77 10	49.5	11.95	13 43	17.51 3	51.7	12.48	0 18	16.72 9	54.0	13.06	9 49	16.97 7	56.7	13.69	3 37
17.88 3	47.4	11.44	0 37	18.62 3	49.6	11.97	4 48	16.28 9	51.7	12.49	2 37	18.47 1	54.0	13.06	5 38	16.72 6	56.7	13.70	8 41
16.29 9	47.4	11.44	4 36	18.88 3	49.6	11.98	4 59	18.74 2	51.7	12.49	10 28	18.66 3	54.2	13.09	0 47	19.15 1	56.7	13.71	11 49
19.06 1	47.5	11.48	11 29	17.21 6	49.9	12.04	9 28	17.66 3	51.7	12.49	6 36	18.39 2	54.2	13.10	7 57	18.44 2	56.8	13.72	10 32
16.15 9	47.6	11.49	14 14	18.89 2	49.9	12.05	12 01	16.87 9	51.7	12.49	6 56	16.69* 1	54.3	13.13	11 12	18.57 3	56.8	13.72	10 16
18.82 3	47.6	11.50	6 40	18.98 1	49.9	12.05	0 38	16.94 9	51.8	12.50	10 10	18.68 2	54.3	13.13	12 29	16.79 8	56.8	13.72	10 58
18.50 3	47.6	11.51	11 16	19.15 1	50.0	12.07	5 52	16.90 7	51.8	12.51	1 48	15.60 10	54.4	13.16	11 38	8.82w 7	56.8	13.72	7 53
18.67 3	47.6	11.51	1 38	18.40 3	50.0	12.08	10 33	18.25 3	51.8	12.51	9 16	15.76 10	54.4	13.16	13 20	18.68 3	56.9	13.74	2 59
18.98 1	47.7	11.53	4 17	18.64 2	50.0	12.08	11 16	17.88 2	51.9	12.52	13 51	18.47 1	54.5	13.17	11 11	18.34 3	56.9	13.75	3 03
15.13 12	47.7	11.53	4 12	19.06 1	50.1	12.09	5 46	18.81 1	52.0	12.54	4 55	17.19 7	54.6	13.20	13 50	18.92 3	56.9	13.75	6 17
17.72 3	47.8	11.55	2 30	18.42 2	50.1	12.09	8 31	18.04 3	52.0	12.55	2 31	15.69 9	54.6	13.20	14 05	14.77 11	57.0	13.77	6 27
17.31 3	47.8	11.56	1 31	14.06 14	50.1	12.09	3 35	16.70 9	52.0	12.56	8 42	18.61 2	54.8	13.24	7 34	17.06 6	57.0	13.78	5 00
18.09 3	47.9	11.57	10 45	18.74 3	50.1	12.09	3 22	17.78 3	52.1	12.58	2 49	19.15 1	54.8	13.24	3 58	18.76 2	57.1	13.79	8 47
15.44 11	48.0	11.59	6 14	18.37w 2	50	12.1	13 00	18.95 3	52.2	12.59	7 41	19.15 1	54.9	13.26	4 53	16.52 6	57.1	13.79	6 01
16.56 9	48.0	11.61	9 14	18.78 2	50.1	12.10	1 42	18.96 2	52.2	12.59	10 31	15.70 11	55.0	13.28	7 59	15.94 9	57.1	13.80	5 31
18.45 3	48.1	11.62	9 49	17.57 5	50.1	12.10	9 19	14.60 13	52.2	12.59	11 39	18.22 3	55.0	13.28	9 53	18.86 2	57.1	13.80	2 52
18.44 2	48.1	11.62	9 56	18.12 3	50.1	12.10	10 19	18.39 3	52.2	12.60	3 25	17.67 3	55.1	13.30	4 47	18.37 3	57.1	13.81	4 32
16.63 9	48.2	11.65	6 47	13.65 15	50.1	12.10	12 39	18.59 3	52.2	12.61	11 27	18.58 2	55.1	13.31	1 48	18.40 2	57.2	13.83	1 43
18.99 2	48.2	11.65	6 18	18.81 2	50.1	12.11	1 22	18.37 3	52.3	12.63	8 02	16.08 10	55.1	13.31	12 30	16.50 9	57.2	13.84	3 15
17.62 5	48.2	11.65	8 46	15.47 11	50.2	12.12	7 52	18.39 3	52.4	12.64	2 02	17.85 3	55.1	13.31	11 18	16.11 8	57.3	13.86	7 39
18.47 1	48.2	11.65	10 54	17.41 3	50.2	12.13	1 30	19.06 1	52.4	12.64	13 22	18.63 3	55.1	13.31	7 07	18.29 3	57.3	13.86	12 29
18.64 1	48.2	11.66	10 51	18.16 3	50.2	12.13	3 57	17.69 3	52.4	12.65	9 00	16.63 9	55.2	13.32	1 00	17.32 6	57.4	13.88	7 08
17.98 2	48.3	11.67	12 40	19.06 1	50.3	12.14	3 50	18.98 1	52.4	12.66	0 55	18.90 2	55.2	13.33	13 22	18.29 3	57.4	13.88	13 03
18.12 3	48.3	11.67	7 37	18.66 2	50.3	12.15	6 49	19.06 1	52.6	12.70	2 31	16.82 9	55.4	13.38	4 13	17.46 2	57.5	13.89	8 32
15.92 10	48.3	11.67	2 28	19.22 1	50.3	12.16	7 14	16.56 9	52.6	12.70	7 57	18.29 3	55.5	13.40	1 13	17.27 5	57.5	13.89	14 10
16.17 9	48.3	11.68	10 39	18.20 3	50.4	12.17	8 58	18.21 3	52.6	12.71	0 32	18.52 3	55.5	13.41	0 25	16.42 9	57.5	13.90	10 03
17.57 4	48.3	11.68	8 49	19.22 1	50.4	12.18	9 52	17.56 3	52.7	12.73	0 04	17.97 3	55.6	13.43	11 10	18.00 3	57.5	13.90	12 15
17.88 3	48.4	11.69	10 25	18.46 3	50.5	12.20	4 45	18.08 3	52.7	12.73	4 26	18.11 3	55.7	13.44	4 56	18.81 1	57.5	13.90	3 05
18.35 2	48.4	11.69	11 31	17.56 3	50.6	12.23	9 47	17.68 3	52.8	12.74	3 29	15.25 12	55.7	13.45	7 38	18.48 3	57.5	13.91	3 19
18.80 2	48.4	11.69	2 46	18.34 3	50.7	12.25	2 32	14.86 12	52.8	12.74	14 32	17.69 3	55.7	13.45	7 04	15.51 11	57.6	13.92	12 49
17.95 3	48.4	11.69	1 02	18.15 3	50.7	12.26	2 36	18.66 3	52.8	12.75	5 22	16.77 8	55.7	13.46	5 59	18.04 3	57.7	13.94	10 58
15.60 10	48.4	11.69	0 11	17.43 3	50.7	12.26	9 23	17.31 5	52.8	12.76	7 13	15.56 11	55.7	13.46	2 56	18.70 3	57.7	13.94	9 35
19.15 1	48.4	11.70	9 00	19.03 2	50.8	12.27	11 10	18.77 3	52.8	12.76	13 34	18.69 3	55.8	13.47	14 56	19.15 1	57.7	13.94	5 05
18.18 3	48.4	11.71	7 01	16.81 9	50.8	12.27	11 45	18.27 3	52.9	12.77	5 35	16.11 10	55.8	13.47	14 02	16.14 9	57.8	13.96	3 22
18.70 3	48.4	11.71	9 37	18.85 2	50.9	12.31	4 06	19.22 1	52.9	12.77	10 13	17.01 6	55.8	13.47	12 36	18.34 2	57.8	13.97	8 30
18.14 3	48.5	11.72	12 10	18.92 2	50.9	12.31	8 57	17.18 5	52.9	12.78	10 38	17.02 6	55.8	13.47	12 32	18.30 2	57.8	13.97	13 56
15.67 9	48.5	11.73	7 32	17.39 5	51.1	12.35	4 03	18.78 2	53.0	12.79	5 19	18.77 2	55.8	13.48	12 42	13.31 17	58.0	14.00	7 54
17.36 3	48.6	11.74	5 12	18.34 2	51.2	12.37	4 00	18.91 2	53.1	12.82	3 42	17.80 3	55.9	13.49	9 39	18.24 3	58.0	14.00	4 28
18.69 3	48.6	11.74	14 10	17.78 3	51.2	12.37	8 59	15.09 12	53.1	12.82	13 30	18.09 3	55.9	13.49	1 21	18.06 2	58.0	14.00	3 43
18.46 2	48.6	11.75	5 25	18.38 2	51.3	12.40	7 15	18.70 3	53.2	12.85	12 15	13.10 18	55.9	13.50	8 30	16.93 6	58.0	14.01	0 28
19.15 1	48.7	11.76	8 02	17.58 3	51.3	12.40	0 43	19.06 1	53.2	12.85	2 22	17.87 3	55.9	13.51	13 14	18.57 2	58.0	14.01	12 04
17.99 3	48.7	11.77	14 28	17.09 5	51.3	12.40	0 34	16.16 9	53.2	12.86	0 33	18.83 3	56.0	13.52	12 15	17.58 3	58.2	14.05	1 33
18.85 3	48.8	11.78	7 49	18.89 1	51.3	12.40	0 27	17.49 5	53.3	12.87	11 59	16.63 8	56.0	13.52	11 56	18.44 3	58.2	14.05	7 41
14.28 13	48.9	11.80	0 03	18.88 2	51.3	12.40	13 17	18.84 3	53.4	12.89	4 01	18.54 2	56.0	13.52	4 52	18.18 2	58.2	14.06	6 05
18.35 3	48.9	11.80	7 00	14.52 12	51.3	12.41	0 09	18.55 3	53.5	12.93	3 53	15.90 9	56.1	13.55	10 54	15.10 12	58.2	14.06	3 03
19.15 1	48.9	11.81	4 21	17.98 3	51.3	12.41	10 40	17.65 3	53.6	12.93	9 00	16.16 9	56.1	13.55	13 22	17.78 2	58.3	14.07	1 25
16.49 9	48.9	11.81	3 43	18.08 3	51.4	12.42	11 58	18.88 3	53.6	12.94	3 11	18.51 3	56.1	13.56	14 25	19.06 1	58.3	14.08	13 00
18.15 3	48.9	11.81	4 27	18.25 3	51.4	12.43	8 52	18.82 2	53.8	12.99	3 57	16.64 9	56.1	13.56	3 00	18.40 3	58.3	14.08	10 51
18.28 3	48.9	11.81	8 34	19.22 1	51.5	12.44	8 49	18.40 2	53.8	12.99	6 15	16.51 8	56.2	13.57	12 09	16.24 9	58.4	14.09	7 07
18.76 3	48.9	11.81	7 15	15.49 11	51.5	12.44	12 46	15.70 10	53.8	12.99	9 12	18.32 3	56.3	13.59	0 01	18.19 2	58.4	14.10	11 52
17.63 3	49.0	11.82	5 51	16.55 9	51.5	12.45	11 15	18.30 3	53.8	13.00	7 15	17.53 3	56.3	13.60	14 30	17.28 5	58.4	14.10	14 50
17.25 5	49.0	11.83	14 45	18.69 3	51.5	12.45	1 06	18.40 2	53.8	13.00	1 44	18.49 3	56.3	13.60	9 16	18.18 3	58.4	14.11	14 58
17.25 3	49.1	11.84	5 33	18.98 1	51.5	12.45	8 11	15.12 12	53.8	13.01	11 18	18.26 2	56.3	13.60	7 25	18.74 3	58.5	14.12	13 44
17.39 5	49.2	11.87	11 55	18.65 3	51.6	12.46	6 59	17.48 3	53.8	13.01	14 40	18.78 2	56.3	13.61	1 38	16.69 9	58.5	14.12	1 50
17.20 6	49.3	11.88	8 07	17.67 3	51.6	12.46	7 49	15.75 10	53.9	13.02	1 16	16.65 7	56.3	13.61	8 16	15.32 11	58.5	14.13	10 43
18.80 3	49.3	11.89	5 40	17.10 6	51.6	12.46	7 39	18.01 3	53.9	13.03	13 32	18.53 3	56.3	13.61	5 45	18.57 3	58.6	14.14	5 55
14.80 12	49.3	11.89	7 20	18.68 2	51.6	12.46	5 38	18.55 1	53.9	13.03	7 51	18.81 1	56.4	13.62	12 31	19.06 1	58.6	14.16	6 47
17.57 5	49.3	11.89	8 27	12.82 14	51.6	12.47	10 56	18.85 3	54.0	13.04	3 58	19.22 1	56.5	13.64	6 23	17.29 6	58.7	14.17	4 40
19.15 1	49.3	11.90	4 32	18.48 2	51.6	12.47	13 56	18.86 3	54.0	13.04	9 57	17.37 3	56.5	13.64	4 23	18.98 1	58.7	14.17	1 37
17.69 3	49.3	11.90	1 53	18.14 3	51.6	12.47	3 53	18.79 2	54.0	13.06	2 12	17.69 3	56.5	13.66	1 46	17.72 3	58.8	14.19	14 36

25 prec. + 69^s.3, + 4′ 31″

901—960				961—1020				1021—1080				1081—1140				1141—1200			
Mag.	α 10^m	x	$y+10'$	Mag.	α 11^m	x	$y+10'$	Mag.	α 11^m	x	$y+10'$	Mag.	α 11^m	x	$y+10'$	Mag.	α 11^m	x	$y+10'$
	s	'	' "		s	'	' "		s	'	' "		s	'	' "		s	'	' "
18.23 3	58.9	14.21	14 45	18.28 2	0.9	14.71	5 18	14.46 13	2.9	15.20	11 50	16.76 9	5.2	15.76	11 40	17.07 8	7.5	16.29	9 16
19.29 1	58.9	14.21	7 54	15.79 9	0.9	14.71	5 10	18.73 3	2.9	15.20	9 54	18.83 3	5.2	15.76	11 25	16.97 6	7.5	16.29	6 01
15.89 9	58.9	14.22	3 10	16.50 9	1.0	14.73	6 12	18.54 2	2.9	15.21	11 24	16.88 8	5.3	15.78	11 21	12.06 13	7.5	16.30	1 59
18.17 3	58.9	14.22	2 10	18.55 2	1.0	14.73	7 31	18.81 2	3.0	15.22	6 09	14.50 12	5.4	15.80	4 46	18.32 3	7.7	16.34	8 56
18.71 3	58.9	14.22	11 11	17.12 8	1.0	14.73	2 11	18.32 3	3.0	15.23	7 17	18.58 3	5.4	15.80	4 54	16.80 9	7.7	16.34	7 55
17.77 3	58.9	14.23	13 18	17.71 3	1.1	14.74	14 01	19.02 2	3.1	15.24	6 44	17.77 4	5.4	15.81	6 59	18.51 3	7.7	16.36	4 32
16.80 9	59.0	14.24	8 54	14.78 12	1.1	14.76	8 35	15.80 9	3.1	15.24	8 51	16.67 9	5.5	15.82	6 29	17.73 3	7.7	16.36	14 57
18.08 3	59.0	14.25	11 08	18.33 3	1.1	14.76	5 23	18.08 2	3.2	15.27	4 55	18.46 2	5.6	15.84	9 04	17.13 4	7.8	16.38	1 02
17.09 5	59.0	14.26	7 51	13.79 14	1.2	14.77	14 55	16.19 9	3.2	15.28	5 40	18.63 3	5.6	15.86	5 34	18.66 3	7.9	16.40	4 41
18.17 3	59.1	14.27	3 53	18.16 2	1.2	14.78	7 45	18.46 2	3.2	15.28	11 56	18.98 1	5.6	15.86	2 38	18.49 3	7.9	16.40	12 33
17.71 3	59.1	14.28	12 52	17.97 3	1.3	14.79	10 28	14.82 9	3.3	15.29	3 49	18.10 3	5.6	15.86	2 19	18.86 3	7.9	16.40	11 02
13.15 17	59.2	14.29	4 39	18.12 3	1.3	14.79	1 25	16.83 7	3.3	15.29	13 52	17.23 6	5.7	15.87	4 25	16.59 9	8.0	16.42	9 27
19.15 1	59.2	14.29	4 03	17.65 4	1.3	14.81	8 11	18.76 2	3.3	15.31	2 43	17.16 6	5.7	15.87	4 14	18.22 2	8.0	16.42	5 36
18.92 2	59.2	14.30	8 03	18.98 1	1.4	14.82	14 04	11.58 12	3.3	15.31	10 10	17.44 3	5.7	15.87	3 52	18.95 3	8.0	16.42	10 14
18.77 2	59.2	14.31	1 12	18.96 2	1.4	14.83	11 29	17.76 3	3.3	15.31	12 37	18.88 2	5.8	15.89	3 43	17.74 2	8.1	16.44	1 36
18.02 3	59.2	14.31	12 21	17.31 5	1.4	14.83	1 19	11.38w12	3.4	15.33	3 15	17.60 3	5.8	15.90	13 14	6.61h 1	8.3	16.50	0 41
14.99 12	59.2	14.31	13 40	15.74 10	1.5	14.85	8 32	12.49 15	3.5	15.34	0 48	18.26 3	5.8	15.90	5 42	13.23 18	8.5	16.54	5 57
17.47 5	59.3	14.33	6 51	18.21 2	1.5	14.86	14 26	17.51 5	3.6	15.37	10 02	18.17 3	5.8	15.91	12 27	18.40 3	8.5	16.54	14 23
18.49 3	59.4	14.34	2 26	18.82 2	1.6	14.88	11 10	16.94 3	3.7	15.39	4 34	17.38 2	6.0	15.94	0 45	18.55 3	8.5	16.55	13 42
17.07 6	59.4	14.34	0 48	17.72 3	1.6	14.88	2 39	15.94 9	3.8	15.39	10 59	18.91 2	6.0	15.94	3 45	18.71 3	8.6	16.58	3 31
16.58 8	59.4	14.35	1 18	19.29 1	1.7	14.89	9 07	15.55 11	4.0	15.45	14 39	18.73 3	6.0	15.95	14 57	19.15 1	8.7	16.60	5 48
18.72 2	59.4	14.35	9 26	17.02 6	1.7	14.89	8 05	18.91 3	4.0	15.46	9 46	18.57 3	6.0	15.96	13 12	18.09 3	8.7	16.60	7 57
18.72 1	59.4	14.36	0 17	18.98 1	1.7	14.90	1 46	18.14 2	4.1	15.47	6 05	14.53 12	6.0	15.96	2 21	17.38 5	8.7	16.61	6 00
18.47 2	59.5	14.37	8 40	18.42 2	1.7	14.90	2 19	19.01 3	4.1	15.48	8 50	19.15 1	6.1	15.97	6 35	19.15 1	8.9	16.65	5 09
14.25 14	59.6	14.39	13 59	15.65 10	1.7	14.91	7 15	15.78 9	4.1	15.48	10 03	18.79 2	6.1	15.97	9 00	18.32 3	8.9	16.65	12 45
18.48 3	59.6	14.39	1 08	14.48 12	1.8	14.92	0 19	18.64* 1	4.1	15.48	14 21	18.61 3	6.1	15.97	4 01	18.10 2	8.9	16.66	5 43
17.81 3	59.6	14.41	1 55	13.97 14	1.8	14.92	0 32	17.87 1	4.1	15.48	14 23	17.36 3	6.1	15.98	3 30	18.30 3	9.0	16.68	12 19
19.14 2	59.6	14.41	8 50	18.34 3	1.8	14.92	10 06	18.94 2	4.1	15.48	3 24	17.76 4	6.2	15.99	7 47	18.85 3	9.1	16.69	2 56
17.15 5	59.8	14.44	12 39	16.15 9	1.8	14.92	12 32	17.33 4	4.2	15.50	13 53	18.89 3	6.2	15.99	10 26	17.47 3	9.1	16.70	9 16
15.72 10	59.8	14.45	11 59	13.47 16	1.8	14.92	6 53	18.23 2	4.2	15.50	10 32	18.72 1	6.2	16.01	14 26	16.96: 9	9.1	16.71	11 37
18.74 2	59.8	14.45	9 49	18.60 2	1.8	14.93	7 30	18.86 3	4.2	15.50	10 20	17.93 3	6.3	16.02	14 00	18.66 2	9.2	16.72	2 46
18.16 2	60.0	14.49	14 26	15.23 12	1.8	14.94	14 26	19.06 1	4.2	15.50	4 13	18.38 3	6.3	16.02	13 22	18.70 2	9.3	16.74	9 07
18.57 3	60.0	14.50	3 50	15.61 10	1.9	14.94	1 40	18.42 3	4.3	15.52	11 02	18.52 2	6.5	16.06	1 22	17.65 3	9.4	16.76	4 57
18.16 3	60.0	14.51	3 40	17.67 3	1.9	14.95	4 36	18.38 2	4.3	15.53	14 03	18.39 3	6.5	16.07	5 30	17.57 3	9.4	16.76	10 33
18.41 3	60.0	14.51	1 44	16.70 9	1.9	14.95	6 21	17.41 3	4.3	15.53	1 37	18.41 3	6.6	16.09	5 21	17.50 5	9.4	16.77	12 33
18.24 2	60.0	14.51	14 59	14.72 12	2.1	14.99	1 31	15.62 7	4.3	15.53	4 49	19.15 1	6.6	16.09	5 07	18.07 2	9.5	16.79	2 01
18.63 3	60.1	14.52	13 56	18.25 3	2.1	15.01	14 51	18.98 1	4.4	15.56	3 57	19.06 1	6.7	16.10	10 22	18.80 2	9.7	16.82	2 45
18.30 1	60.1	14.53	0 32	19.06 1	2.1	15.01	8 54	17.82 3	4.4	15.56	6 39	17.05 6	6.8	16.12	11 40	18.13 3	9.7	16.82	5 15
17.25 5	60.2	14.55	8 30	17.94 3	2.1	15.01	8 22	18.08 3	4.5	15.57	12 42	18.10 3	6.8	16.12	4 53	17.07 6	9.7	16.82	6 48
17.51 5	60.2	14.55	6 48	17.50 5	2.2	15.03	7 18	18.96 2	4.5	15.58	12 04	18.33 3	6.8	16.13	3 45	18.48 2	9.8	16.86	1 28
14.59 12	60.2	14.56	11 40	18.35 3	2.3	15.04	6 35	18.98 1	4.6	15.59	2 15	17.20 5	6.8	16.13	11 05	17.38 3	9.9	16.87	3 05
14.82 12	60.2	14.56	10 19	18.88 2	2.3	15.06	6 26	18.15 2	4.6	15.60	11 10	17.55 2	6.8	16.13	5 50	18.18 2	10.0	16.90	14 28
17.51 3	60.4	14.59	4 41	18.78 2	2.3	15.06	1 30	18.32 2	4.6	15.61	4 00	18.79 2	6.8	16.13	8 46	18.67 3	10.0	16.91	14 49
18.23 3	60.4	14.60	11 37	17.09 6	2.4	15.07	6 39	18.69 3	4.8	15.64	12 30	18.42 3	6.9	16.14	9 03	17.23 5	10.0	16.91	1 52
18.41 3	60.4	14.60	6 31	13.27 17	2.4	15.07	12 52	17.76 3	4.8	15.65	13 34	18.88 2	6.9	16.15	8 13	18.72 3	10.1	16.92	13 30
18.72 2	60.4	14.61	3 09	19.22 1	2.4	15.08	10 12	17.13 7	4.8	15.66	9 57	18.26 3	6.9	16.16	11 50	17.26 2	10.2	16.94	1 08
16.96 8	60.4	14.61	3 15	18.76 2	2.4	15.08	1 24	17.89 3	4.8	15.66	0 21	15.33 11	7.0	16.17	11 11	16.56 9	10.3	16.97	6 03
18.98 1	60.5	14.62	0 37	18.54 3	2.5	15.09	14 58	18.25 3	5.0	15.70	13 02	19.22 1	7.0	16.17	9 25	17.35 5	10.3	16.98	12 46
18.07 3	60.5	14.63	10 20	18.98 1	2.5	15.10	1 16	18.06 3	5.0	15.71	10 05	18.44 3	7.1	16.19	9 31	17.11 5	10.4	17.01	2 05
18.42 3	60.6	14.64	2 37	18.61 3	2.5	15.10	5 54	18.12 3	5.0	15.71	7 17	17.73 5	7.1	16.19	5 40	15.49 11	10.4	17.01	6 12
18.59 3	60.6	14.65	4 43	16.37 9	2.5	15.10	11 35	18.65 2	5.1	15.72	10 40	16.06 7	7.1	16.20	3 11	18.14 3	10.5	17.02	10 45
19.02 3	60.6	14.65	8 24	16.61 8	2.5	15.10	7 49	18.24 2	5.1	15.72	5 09	17.18 6	7.1	16.20	10 32	19.06 1	10.5	17.03	2 53
17.65 5	60.7	14.66	6 08	18.51 3	2.5	15.11	5 41	17.50 5	5.1	15.72	4 40	16.70 8	7.1	16.21	6 31	18.32 3	10.6	17.04	2 46
16.98 6	60.8	14.68	13 18	18.15 3	2.5	15.11	9 14	18.80 3	5.1	15.73	12 44	15.12 12	7.2	16.22	4 36	16.70 8	10.7	17.07	13 16
19.22 1	60.8	14.69	5 47	17.91 3	2.5	15.11	1 10	15.66 9	5.2	15.74	5 33	16.73 8	7.3	16.25	7 18	17.83 3	10.7	17.08	14 22
17.90 3	60.8	14.69	1 51	18.13 3	2.6	15.12	6 19	17.80 3	5.2	15.75	3 26	19.06 1	7.3	16.26	9 11	17.10 7	10.8	17.10	2 42
15.88 9	60.9	14.70	3 03	18.26 3	2.6	15.12	10 32	18.47 1	5.2	15.75	3 09	16.17 8	7.3	16.26	3 51	17.33 5	10.9	17.12	8 15
17.70 3	60.9	14.70	3 57	18.67 2	2.7	15.14	10 10	18.81 1	5.2	15.76	7 15	18.68 2	7.4	16.27	1 41	19.15 1	10.9	17.12	5 40
18.82 2	60.9	14.71	2 13	17.45 3	2.7	15.16	4 36	18.47 1	5.2	15.76	3 50	18.37 3	7.4	16.27	14 12	17.11 7	10.9	17.13	13 29
15.86 9	60.9	14.71	14 11	17.88 3	2.9	15.19	10 02	17.96 3	5.2	15.76	1 19	13.47 18	7.4	16.27	5 23	17.29 5	11.0	17.15	12 35

25 prec. $+\,69^{s}.3$, $+\,4'\,31''$

1201—1260				
Mag.		α 11^{m}	x	y+10′
		s	′	′ ″
16.02	9	11.0	17.16	4 55
18.84	2	11.1	17.18	2 33
18.11	3	11.2	17.20	12 37
18.80	3	11.2	17.21	11 47
18.14	3	11.2	17.21	0 21
18.40	3	11.3	17.23	4 08
16.86	8	11.3	17.23	12 21
18.72	1	11.4	17.26	2 16
18.16	3	11.5	17.27	1 51
18.64	3	11.5	17.27	8 18
18.72	2	11.5	17.27	13 34
18.82	2	11.5	17.27	13 08
18.51	3	11.5	17.28	13 02
18.20	3	11.5	17.28	6 35
18.98	1	11.6	17.30	13 40
18.48	3	11.6	17.30	9 59
16.74	8	11.7	17.33	0 26
18.11	3	11.8	17.35	1 46
17.85	3	11.8	17.35	0 58
18.87	2	11.8	17.36	3 01
15.39	11	11.8	17.36	3 07
18.13	3	11.8	17.36	11 00
18.54	3	11.8	17.37	14 29
17.45	3	11.9	17.38	13 36
17.39	5	12.0	17.39	4 13
19.06	1	12.0	17.40	7 29
17.85	3	12.0	17.40	8 07
16.00	10	12.0	17.41	12 51
18.66	3	12.1	17.42	10 16
18.49	2	12.1	17.43	2 48
17.54	5	12.2	17.44	7 50
17.66	5	12.2	17.44	10 55
19.06	1	12.2	17.45	4 33
13.99	15	12.3	17.46	12 44
17.17	7	12.3	17.47	8 10
17.14	3	12.4	17.48	9 31
17.31	5	12.4	17.48	9 27
16.78	8	12.4	17.48	2 01
17.45	5	12.4	17.48	13 23
18.84	2	12.4	17.49	5 49
15.76	9	12.4	17.49	9 15
17.17	5	12.5	17.50	12 07
16.14	9	12.5	17.51	3 26
16.81	8	12.5	17.51	1 38
19.06	1	12.5	17.51	1 29
17.38	5	12.6	17.52	7 39
17.07	6	12.7	17.55	4 10
18.09	3	12.8	17.58	13 38
16.60	9	13.1	17.64	11 37
16.92	8	13.1	17.65	13 17
18.62	3	13.1	17.65	13 49
16.75	8	13.1	17.65	14 42
18.60	2	13.1	17.65	1 29
17.15	3	13.1	17.65	0 14
18.90	3	13.1	17.66	6 51
18.18	3	13.1	17.66	8 40
17.18	5	13.2	17.67	12 39
14.78	12	13.2	17.68	9 01
18.18	3	13.2	17.68	8 24
15.08	12	13.3	17.69	6 14

1261—1320				
Mag.		α 11^{m}	x	y+10′
		s	′	′ ″
18.02	3	13.3	17.71	6 59
18.64	2	13.3	17.71	6 41
18.84	2	13.3	17.71	9 19
17.65	3	13.4	17.73	13 24
12.85	16	13.5	17.75	8 48
17.40	6	13.5	17.75	3 31
17.33	3	13.5	17.75	2 31
16.39	9	13.6	17.77	5 19
17.44	4	13.6	17.78	7 27
17.67	5	13.9	17.84	11 25
17.72	3	13.9	17.84	8 34
18.18	2	13.9	17.85	0 32
17.46	3	14.1	17.90	5 28
17.54	5	14.1	17.91	7 39
18.23	3	14.1	17.91	6 31
16.06	9	14.1	17.91	11 38
18.98	1	14.2	17.93	3 04
17.27	7	14.3	17.94	9 57
19.15	1	14.4	17.97	7 11
17.06	6	14.4	17.97	13 40
18.98	1	14.4	17.98	13 51
17.95	3	14.5	18.01	10 06
15.51	11	14.7	18.05	14 09
18.48	2	14.7	18.05	2 44
18.62	3	14.8	18.07	10 32
18.10	3	14.8	18.08	9 09
19.06	1	14.8	18.08	5 45
16.78	9	14.9	18.09	8 26
17.30	5	14.9	18.11	3 53
18.82	2	15.0	18.12	4 32
16.48	9	15.0	18.12	2 59
15.28	11	15.0	18.12	0 18
18.63	3	15.1	18.14	6 55
18.32	3	15.1	18.15	14 01
18.06	2	15.1	18.16	7 44
18.00	2	15.3	18.19	3 17
15.43	11	15.3	18.20	5 28
17.83	3	15.3	18.21	12 26
13.63	15	15.4	18.22	7 27
16.76	9	15.4	18.23	10 28
18.74	2	15.5	18.24	14 55
16.68	8	15.5	18.24	8 14
14.29	13	15.5	18.24	2 46
19.06	1	15.5	18.25	6 55
19.06	1	15.6	18.26	4 21
15.97	9	15.6	18.27	0 46
18.60	3	15.7	18.28	13 01
17.58	2	15.8	18.30	1 06
18.66	3	15.8	18.30	10 12
18.35	3	15.8	18.31	13 54
18.58	3	15.8	18.31	14 37
16.49	9	15.8	18.31	3 12
18.88	2	15.9	18.32	5 13
18.46	3	15.9	18.32	10 09
16.16	9	15.9	18.33	8 37
13.09	15	16.0	18.34	0 36
18.22	3	16.0	18.34	0 26
18.82	2	16.0	18.36	2 30
18.45	3	16.1	18.37	14 22
18.60	3	16.2	18.40	14 42

1321—1380				
Mag.		α 11^{m}	x	y+10′
		s	′	′ ″
18.84	2	16.2	18.40	6 56
18.94	2	16.2	18.41	6 35
14.49	12	16.2	18.41	7 45
18.87	2	16.3	18.42	12 50
18.67	3	16.3	18.43	13 21
18.62	3	16.4	18.46	13 05
18.41	3	16.5	18.47	3 17
17.85	2	16.5	18.47	9 44
15.26	10	16.5	18.48	5 10
18.44	3	16.5	18.48	7 10
17.68	3	16.5	18.48	2 13
18.23	3	16.6	18.50	7 28
15.86	9	16.6	18.51	14 58
18.23	3	16.7	18.53	0 37
18.00	2	16.8	18.54	3 00
16.66	7	16.8	18.55	6 58
18.74	2	16.8	18.56	4 39
18.58	2	16.8	18.56	2 45
18.05	3	16.8	18.56	0 53
17.28	4	17.0	18.59	0 26
13.53	16	17.0	18.59	6 03
16.81	9	17.2	18.64	1 44
18.79	3	17.2	18.64	8 35
19.06	1	17.2	18.66	4 19
16.09	9	17.3	18.67	0 20
17.32	3	17.3	18.67	2 34
18.82	2	17.4	18.69	4 06
18.98	1	17.4	18.69	2 43
18.31	3	17.4	18.71	11 26
16.91	8	17.5	18.72	13 50
16.35	9	17.5	18.72	3 53
18.69	3	17.5	18.73	6 13
15.11	12	17.5	18.73	7 36
18.41	3	17.6	18.75	8 22
18.19	3	17.6	18.75	4 03
17.19	5	17.6	18.76	4 33
16.25	9	17.7	18.78	9 45
16.86	6	17.7	18.78	6 28
18.32	2	17.7	18.78	5 51
16.85	8	17.8	18.81	6 01
17.19	3	17.8	18.81	8 27
18.58	3	17.9	18.83	6 19
18.03	2	17.9	18.83	0 26
16.70	8	18.0	18.84	5 42
17.28	5	18.0	18.85	9 28
17.90	3	18.0	18.85	0 36
15.33	11	18.1	18.87	11 31
18.36	2	18.2	18.89	3 46
16.74	9	18.2	18.90	13 14
17.90	3	18.2	18.91	4 06
18.70	3	18.3	18.92	9 25
19.06	1	18.3	18.92	10 31
18.64	3	18.3	18.93	5 28
18.39	3	18.5	18.96	5 14
17.63	3	18.5	18.97	0 03
18.48	2	18.6	18.98	0 11
16.98	8	18.6	18.98	3 43
16.76	9	18.6	18.98	13 56
17.94	3	18.6	18.99	12 57
17.88	3	18.6	18.99	2 43

1381—1440				
Mag.		α 11^{m}	x	y+10′
		s	′	′ ″
18.23	3	18.6	18.99	9 22
18.06	3	18.7	19.00	12 00
17.20	5	18.7	19.01	13 50
17.06	6	18.7	19.01	12 11
16.77	8	18.8	19.03	3 49
17.91	3	18.9	19.06	3 17
19.06	1	19.0	19.07	11 14
18.60	3	19.0	19.08	14 12
18.54	3	19.1	19.09	12 46
18.09	3	19.1	19.10	1 17
18.05	3	19.2	19.12	8 17
17.96	3	19.2	19.13	5 27
18.98	1	19.2	19.13	4 46
17.46	3	19.3	19.14	5 01
16.31	9	19.3	19.16	8 47
17.94	3	19.3	19.16	9 55
18.60	3	19.3	19.16	10 14
18.58	3	19.4	19.17	14 50
18.64	1	19.4	19.17	3 20
16.11	9	19.4	19.18	3 32
18.82	2	19.5	19.19	4 03
17.12	7	19.5	19.19	13 13
15.21	11	19.5	19.21	3 50
18.76	2	19.6	19.22	1 11
17.08	6	19.6	19.22	10 48
18.54	3	19.6	19.22	5 40
18.74	2	19.6	19.23	0 53
18.09	3	19.6	19.23	4 32
18.37	2	19.7	19.26	9 45
18.74	2	19.7	19.26	2 05
18.47	3	19.8	19.27	7 29
18.26	3	19.9	19.29	3 17
18.98	1	19.9	19.30	9 33
18.24	3	19.9	19.31	3 26
18.19	3	19.9	19.31	4 16
18.13	3	19.9	19.31	2 42
15.69	11	20.0	19.32	11 52
18.88	3	20.0	19.33	8 54
18.72	2	20.1	19.34	11 08
18.05	3	20.1	19.34	10 55
18.26	3	20.1	19.34	6 05
15.54	11	20.1	19.36	11 19
17.91	3	20.1	19.36	4 53
16.65	9	20.2	19.37	3 13
18.10	3	20.2	19.38	10 29
17.42	3	20.2	19.38	0 52
18.20	3	20.4	19.40	4 32
18.72	2	20.4	19.41	10 14
18.32	3	20.4	19.42	14 40
15.49	10	20.5	19.44	4 14
17.70	3	20.5	19.45	10 51
16.95	5	20.5	19.45	13 58
17.22	5	20.5	19.46	12 14
17.58	3	20.5	19.46	3 21
17.75	3	20.6	19.47	5 09
18.04	3	20.6	19.47	8 54
17.19	5	20.7	19.49	7 05
18.74	2	20.7	19.49	1 06
17.26	3	20.7	19.49	1 27
17.76	3	20.7	19.50	10 25

1441—1500				
Mag.		α 11^{m}	x	y+10′
		s	′	′ ″
18.67	3	20.7	19.50	3 56
16.55	9	20.7	19.51	3 13
17.33	3	20.7	19.51	0 06
18.89	1	20.9	19.55	14 37
16.75	8	21.0	19.57	14 43
18.52	3	21.0	19.58	13 02
16.77	8	21.1	19.59	14 09
18.62	3	21.1	19.60	14 06
18.85	2	21.1	19.60	7 55
17.59	3	21.2	19.62	12 01
18.82	3	21.3	19.65	10 27
18.73	3	21.3	19.65	1 28
17.29	3	21.4	19.66	4 11
17.88	3	21.6	19.71	4 08
18.72	1	21.6	19.71	4 26
13.15	15	21.6	19.71	9 01
17.63	3	21.6	19.71	14 12
17.97	3	21.7	19.73	11 19
16.69	9	22.0	19.80	7 26
15.06	11	22.0	19.80	2 18
18.63	3	22.1	19.83	10 41
18.65	3	22.2	19.86	13 31
18.65	2	22.2	19.86	5 21
18.98	1	22.4	19.89	7 34
18.74	2	22.4	19.89	6 55
17.97	3	22.4	19.89	14 40
18.22	2	22.4	19.90	8 47
17.82	3	22.4	19.91	10 00
18.44	3	22.4	19.91	14 55
17.85	3	22.5	19.92	9 48
18.13	3	22.5	19.93	7 21
13.86	15	22.6	19.94	3 35
18.74	2	22.6	19.96	2 11
17.10	6	22.6	19.96	4 26
18.22	3	22.6	19.96	12 51
18.72	1	22.7	19.97	9 24
16.71	8	22.7	19.98	14 42
17.13	3	22.8	20.01	7 27
17.01	6	22.8	20.01	4 46
18.63	3	22.9	20.03	8 47
17.86	3	23.0	20.04	9 46
18.30	3	23.0	20.04	1 36
18.74	2	23.0	20.04	4 04
18.14	3	23.0	20.04	14 01
18.72	2	23.0	20.04	14 19
17.77	3	23.0	20.06	8 22
16.47	9	23.0	20.06	2 51
13.72	14	23.1	20.07	3 22
17.66	3	23.2	20.09	9 00
18.51	3	23.2	20.09	13 46
16.61	9	23.2	20.10	0 42
17.75	3	23.3	20.13	6 58
18.29	3	23.4	20.16	11 02
18.09	3	23.4	20.16	12 22
18.87	2	23.6	20.19	7 54
17.23	5	23.6	20.19	5 16
18.03	3	23.6	20.19	1 24
17.89	3	23.6	20.20	4 13
17.34	5	23.6	20.20	4 43
16.38	9	23.6	20.21	4 28

25 prec. + 69^{s}.3, + 4′ 32″

1501—1520					1521—1540					1541—1560				
Mag.		α 11^m	x	y+10′	Mag.		α 11^m	x	y+10′	Mag.		α 11^m	x	y+10′
		s	′	′ ″			s	′	′ ″			s	′	′ ″
15.28	11	23.7	20.22	13 00	17.99	3	24.7	20.46	10 33	15.85	9	25.9	20.74	13 38
18.61	3	23.8	20.24	8 56	18.31	3	24.8	20.47	12 50	17.26	5	25.9	20.75	8 59
18.30	3	23.8	20.25	1 36	18.05	3	24.9	20.51	9 07	15.35	11	25.9	20.76	2 10
18.70	2	23.8	20.26	11 41	18.16	3	25.0	20.52	2 35	17.83	3	26.0	20.77	14 29
17.42	5	23.8	20.26	8 44	17.58	3	25.0	20.53	3 52	16.05	10	26.1	20.79	6 08
18.30	2	23.9	20.27	2 42	18.18	3	25.0	20.53	12 13	17.05	5	26.2	20.82	0 46
17.13	6	23.9	20.28	6 51	17.73	3	25.1	20.54	0 30	17.96	3	26.2	20.82	14 56
17.32	3	24.0	20.29	14 52	18.18	2	25.1	20.55	3 27	17.36	5	26.3	20.86	10 53
16.93	6	24.0	20.29	10 49	18.40	3	25.1	20.55	6 41	17.11	2	26.3	20.86	1 05
18.43	2	24.0	20.30	3 02	17.76	2	25.1	20.56	12 22	18.28	3	26.3	20.86	1 41
15.33	12	24.1	20.33	8 41	18.72	2	25.2	20.57	13 06	17.06	3	26.4	20.87	4 49
17.63	3	24.2	20.34	11 32	17.13	5	25.2	20.57	10 31	18.63	3	26.4	20.88	5 23
17.06	6	24.2	20.36	5 20	18.50	3	25.3	20.60	0 48	18.81	2	26.5	20.90	10 29
13.99	14	24.4	20.40	1 05	17.59	3	25.3	20.60	0 56	18.46	3	26.5	20.91	2 30
18.34	3	24.4	20.40	1 59	17.29	3	25.3	20.60	0 10	18.36	3	26.6	20.92	8 25
18.78	2	24.4	20.40	5 19	18.13	3	25.4	20.63	12 17	17.35	3	26.6	20.93	6 46
18.50	2	24.4	20.41	9 25	18.87	3	25.4	20.63	5 39	18.58	3	26.7	20.94	13 52
18.74	2	24.5	20.43	9 46	18.54	3	25.5	20.66	8 21	17.53	3	26.8	20.98	12 16
17.40	3	24.6	20.44	6 57	18.68	3	25.7	20.71	8 32	14.58	13	26.9	21.00	0 15
18.59	3	24.6	20.45	4 51	16.94	6	25.7	20.71	12 46	17.12	5	26.9	21.00	3 27

25 prec. + $69^{s}.3$, + 4′ 32″

20h Area 88. Supplementary Stars + 15°

1s—30s					31s—60s					61s—90s					91s—120s					121s—150s				
Mag.		α 10^m	x	y+10′	Mag.		α 10^m	x	y+10′	Mag.		α 10^m	x	y+10′	Mag.		α 10^m	x	y+10′	Mag.		α 10^m	x	y+10′
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
16.79	7	10	2.4	7.1	16.72	7	14	3.3	3.6	18.11	2	17	4.0	7.0	17.15	4	18	4.4	8.2	15.49	8	21	5.0	2.8
16.09	7	10	2.4	8.1	18.31	2	14	3.3	5.5	15.03	10	16	4.0	8.4	15.55	8	18	4.4	10.7	16.91	5	21	5.0	3.0
16.65	7	10	2.4	8.4	17.17	2	14	3.3	6.6	17.30	2	17	4.0	10.8	16.63	7	18	4.4	11.4	17.97	2	21	5.0	3.8
18.11	2	10	2.4	9.4	18.51	2	14	3.4	6.4	18.15	2	17	4.0	11.6	17.13	4	18	4.4	13.4	17.85	2	21	5.0	4.4
16.58	7	11	2.6	7.8	17.97	2	14	3.4	7.4	15.86	7	16	4.0	12.1	17.04	5	18	4.4	14.0	16.31	7	21	5.0	5.3
16.03	7	11	2.6	8.1	16.94	3	14	3.4	11.4	15.45	8	16	4.0	12.6	16.73	7	19	4.5	12.4	18.27	2	21	5.0	6.3
17.33	2	11	2.6	8.4	17.28	4	14	3.4	12.0	16.99	5	17	4.0	13.6	16.61	7	19	4.6	2.1	18.55	2	21	5.0	7.7
18.23	2	11	2.6	9.0	16.59	7	14	3.4	12.6	16.21	5	17	4.1	5.0	17.00	3	19	4.6	7.3	16.72	7	21	5.0	8.3
17.69	2	11	2.6	9.6	18.51	2	14	3.5	3.4	16.73	7	17	4.1	5.4	17.46	2	19	4.6	7.4	18.39	2	21	5.0	9.4
18.13	2	11	2.7	5.7	15.71	8	14	3.5	4.2	17.32	2	17	4.1	8.0	16.74	7	19	4.6	8.2	17.57	2	21	5.0	10.0
14.61	10	11	2.7	6.1	16.86	7	15	3.5	8.2	15.59	8	17	4.1	9.6	17.88	2	19	4.6	9.4	15.08	9	21	5.0	11.9
17.83	2	11	2.7	7.1	18.18	2	15	3.6	3.8	18.29	2	17	4.1	14.0	16.91	7	19	4.6	9.8	15.62	8	21	5.0	12.6
17.77	2	12	2.8	5.2	17.54	2	15	3.6	4.1	17.26	4	17	4.2	4.8	15.74	8	19	4.6	11.4	17.25	4	21	5.0	12.8
18.13	2	12	2.8	7.6	17.53	2	15	3.6	7.2	18.11	2	17	4.2	6.3	16.82	5	19	4.6	12.6	17.05	4	21	5.0	15.0
17.55	2	11	2.8	8.8	17.69	2	15	3.6	8.7	17.37	2	17	4.2	7.4	15.64	8	19	4.6	13.2	17.95	2	21	5.1	3.6
18.41	2	12	2.9	5.6	16.76	7	15	3.6	10.4	15.51	9	17	4.2	8.6	18.31	2	19	4.6	14.7	18.15	2	22	5.2	1.0
15.69	8	12	2.9	9.4	15.03	9	15	3.6	11.6	15.87	8	17	4.2	8.7	18.55	2	20	4.8	6.2	17.52	2	22	5.2	4.3
15.41	9	12	2.9	11.4	17.37	2	15	3.7	3.8	18.23	2	17	4.2	9.4	17.65	2	20	4.8	7.5	17.79	2	22	5.2	5.4
15.02	9	12	3.0	3.8	18.01	2	15	3.7	6.0	16.26	7	17	4.2	10.2	17.45	2	20	4.8	8.2	17.67	2	22	5.2	5.8
15.65	7	12	3.0	6.0	18.42	2	15	3.7	7.8	14.70	10	18	4.2	10.5	14.40	11	20	4.8	9.8	17.17	4	22	5.2	6.8
14.97	10	12	3.0	7.4	17.63	2	15	3.7	8.8	16.33	7	17	4.2	12.2	15.66	8	20	4.8	11.6	18.13	2	21	5.2	7.8
17.53	2	12	3.0	7.8	18.11	2	16	3.8	3.2	18.10	2	17	4.2	13.4	17.63	2	20	4.8	13.6	18.11	2	22	5.2	9.0
16.91	5	12	3.0	8.5	18.07	2	16	3.8	5.4	15.98	7	18	4.3	1.4	17.71	2	20	4.8	13.7	17.02	5	21	5.2	10.8
17.61	2	12	3.0	8.6	17.95	2	16	3.8	7.6	17.69	2	18	4.3	6.0	17.01	2	20	4.9	0.8	17.21	4	21	5.2	12.4
17.69	2	13	3.0	9.6	13.71	13	16	3.8	11.4	16.56	6	18	4.3	9.8	16.90	7	20	4.9	2.3	15.39	8	22	5.3	1.0
17.52	2	13	3.1	6.4	17.12	5	16	3.9	11.6	18.29	2	18	4.3	10.6	17.67	2	20	4.9	2.8	17.35	2	22	5.3	11.4
15.83	8	13	3.2	7.7	16.22	7	16	3.9	11.9	17.49	2	18	4.4	2.8	17.37	2	20	4.9	4.0	17.93	2	22	5.3	13.6
16.22	7	13	3.2	9.8	15.46	8	16	4.0	3.7	17.59	2	18	4.4	3.1	18.34	2	20	4.9	9.6	17.78	2	22	5.4	0.3
15.07	10	13	3.2	10.8	14.54	9	17	4.0	5.4	18.39	2	18	4.4	5.2	17.35	2	20	4.9	14.6	17.61	2	23	5.4	2.2
15.84	8	13	3.2	11.8	16.86	5	17	4.0	6.3	17.30	2	18	4.4	6.4	16.72	7	20	4.9	14.7	17.92	2	22	5.4	3.0

25 prec. + $69^{s}.3$, + 4′ 30″

151s—210s				211s—270s				271s—330s				331s—390s				391s—450s			
Mag.	α 10^m	x	$\frac{y+70'}{y+10'}$	Mag.	α 10^m	x	$\frac{y+70'}{y+10'}$	Mag.	α 10^m	x	$\frac{y+70'}{y+10'}$	Mag.	α 10^m	x	$\frac{y+70'}{y+10'}$	Mag.	α 10^m	x	$\frac{y+70'}{y+10'}$
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
17.15 4	23	5.4	3.5	17.13 4	32	7.7	15.4	17.49 2	42	10.1	57.8	13.50 16	49	11.9	57.8	14.51 10	58	13.9	58.0
18.07 2	22	5.4	6.3	15.67 8	32	7.8	16.4	16.90 3	42	10.1	59.2	17.55 2	49	11.9	15.6	18.08 2	58	13.9	59.6
13.93 11	22	5.4	6.4	16.56 7	32	7.8	16.6	14.91 10	42	10.1	59.9	16.79 7	49	11.9	18.0	18.39 2	58	14.0	15.2
18.38 2	22	5.4	7.8	18.03 2	32	7.8	17.5	14.91 9	42	10.2	58.0	16.93 7	49	11.9	18.2	16.36 7	58	14.0	16.3
14.43 11	22	5.4	11.8	17.13 4	33	8.0	16.6	17.12 4	42	10.2	58.4	18.25 2	50	12.0	58.6	17.42 2	58	14.1	58.0
17.71 2	22	5.4	14.1	14.34 12	34	8.1	58.3	17.63 2	42	10.2	59.6	17.24 4	50	12.0	15.4	17.33 2	58	14.1	59.2
14.02 12	22	5.4	15.3	18.37 2	34	8.1	15.4	12.28 14	42	10.2	15.8	16.09 7	50	12.0	15.9	15.14 10	58	14.1	59.7
14.14: 11	23	5.5	2.5	17.33 2	34	8.1	17.4	16.19 7	42	10.2	17.4	18.33 2	50	12.0	17.4	18.49 2	58	14.1	15.2
18.43 2	23	5.5	3.2	16.76 7	34	8.2	58.9	17.53 2	42	10.2	18.1	18.07 2	50	12.1	57.9	16.56 7	58	14.1	17.3
17.11 4	23	5.5	4.1	15.74 8	34	8.2	59.0	17.83 2	43	10.4	58.0	15.59 8	50	12.1	58.7	17.02 4	59	14.2	59.4
16.50 7	23	5.6	0.4	18.23 2	34	8.2	17.6	17.58 2	43	10.4	15.5	18.23 2	51	12.2	57.4	17.25 2	59	14.2	15.8
16.47 7	23	5.6	1.2	17.37 2	34	8.3	16.0	15.73 7	43	10.4	18.2	15.08 10	51	12.3	57.5	15.49 9	59	14.2	18.5
17.53 2	23	5.6	2.6	17.85 2	35	8.4	58.1	10.86 9	44	10.5	17.1	18.39 2	51	12.3	59.6	17.87 2	59	14.3	56.6
17.15 4	23	5.6	3.2	14.77 10	35	8.4	59.8	14.45 11	44	10.5	17.4	17.77 2	51	12.3	15.6	17.53 2	59	14.3	58.2
18.48 2	23	5.6	4.0	17.51 2	35	8.4	16.4	17.85 2	44	10.6	58.4	16.84 5	51	12.3	18.4	17.27 2	60	14.4	58.0
16.16 7	23	5.6	4.8	16.69 7	35	8.4	17.0	16.49 7	44	10.6	59.2	18.05 2	51	12.4	58.7	15.76 7	60	14.4	58.4
16.30 7	23	5.6	7.6	16.85 4	35	8.4	17.4	17.46 4	44	10.6	59.3	18.13 2	51	12.4	59.2	17.04 5	60	14.4	59.5
18.11 2	23	5.6	8.3	16.40 7	35	8.5	17.8	15.87 8	44	10.6	59.5	16.55 7	52	12.6	57.0	15.05 10	59	14.4	15.4
18.11 2	23	5.6	8.4	17.40 2	36	8.6	16.3	17.84 2	44	10.6	18.2	15.84 8	52	12.6	58.7	11.11 11	59	14.4	16.5
18.34 2	23	5.6	10.4	17.97 2	36	8.6	17.4	18.03 2	44	10.6	18.3	18.03 2	52	12.6	15.4	18.26 2	60	14.5	18.6
16.87 5	23	5.6	11.8	17.12 4	36	8.6	17.8	16.12 7	44	10.7	57.2	16.29 7	52	12.6	16.0	14.92 9	60	14.6	59.4
18.35 2	23	5.6	12.2	18.41 2	36	8.7	16.4	16.71 7	45	10.8	57.8	16.95 6	52	12.6	17.5	14.59 10	60	14.6	15.4
12.60 14	23	5.6	13.3	16.78 7	36	8.8	57.8	16.85 4	45	10.8	58.0	16.55 7	52	12.6	17.6	17.42 2	61	14.6	15.5
18.18 2	23	5.6	14.2	17.27 2	36	8.8	58.2	15.02 10	45	10.8	59.0	17.26 4	52	12.6	18.4	16.40 7	60	14.6	16.0
18.15 2	23	5.6	15.5	17.22 4	36	8.8	15.4	18.29 2	45	10.8	15.8	18.17 2	53	12.7	58.4	17.48 2	60	14.6	16.1
17.94 2	24	5.7	4.3	16.50 7	36	8.8	16.0	17.89 2	45	10.8	16.0	18.09 2	53	12.7	18.4	18.25 2	60	14.6	17.3
18.36 2	24	5.7	14.3	16.53 7	36	8.8	16.4	13.26 14	45	10.8	16.4	18.01 2	53	12.8	57.1	16.43 7	61	14.6	18.3
18.38 2	24	5.7	14.5	17.87 2	36	8.8	17.0	16.76 7	45	10.8	18.0	17.35 2	53	12.8	58.0	15.60 9	61	14.7	16.6
17.55 2	24	5.8	0.6	14.94 10	36	8.8	17.5	18.47 2	45	10.9	57.5	18.83 2	53	12.8	15.2	17.27 2	61	14.8	58.4
17.39 2	24	5.8	3.5	15.78 7	36	8.8	17.6	16.63 7	45	10.9	58.8	18.44 2	53	12.8	16.7	15.62 9	61	14.8	15.4
18.44 2	24	5.8	4.1	16.65 5	36	8.8	17.8	17.67 2	45	10.9	18.6	17.31 4	54	13.0	15.4	15.52 9	62	14.8	16.7
16.81 5	24	5.8	4.3	16.52 7	37	8.9	17.9	17.00 5	46	11.0	59.8	16.49 7	54	13.1	57.4	17.12 4	61	14.8	17.4
18.37 2	24	5.8	5.4	14.81 8	37	9.0	57.4	17.07 4	45	11.0	18.0	18.51 2	54	13.1	19.1	14.60 10	62	14.9	58.7
17.77 2	24	5.8	6.6	15.94 7	37	9.0	15.1	17.06 4	46	11.1	59.4	18.47 2	55	13.2	15.8	18.17 2	62	14.9	59.0
17.96 2	24	5.8	10.0	15.15 7	37	9.0	16.0	17.69 2	46	11.2	17.4	17.05 5	55	13.2	17.2	17.25 3	62	14.9	59.8.
16.42 7	24	5.8	13.2	15.43 9	37	9.0	16.4	17.02 5	46	11.2	18.4	18.04 2	55	13.2	19.0	14.81 9	62	15.0	57.4
17.95 2	24	5.8	14.2	16.66 3	37	9.0	16.6	18.07 2	46	11.2	18.6	16.99 2	55	13.3	56.6	13.67 13	62	15.0	59.0
16.99 2	24	5.8	14.5	17.75 2	37	9.0	17.4	17.96 2	47	11.3	58.4	17.63 2	55	13.3	18.4	16.56 7	62	15.0	16.6
18.45 2	24	5.9	1.8	17.28 4	38	9.2	15.4	18.29 2	47	11.4	56.9	18.09 2	56	13.4	57.1	18.17 2	63	15.1	57.3
18.56 2	24	5.9	5.3	17.06 3	38	9.2	17.8	17.51 2	47	11.4	58.3	18.39 2	56	13.4	16.6	15.19 9	63	15.1	59.9
17.47 2	24	5.9	7.2	18.36 2	39	9.3	57.8	17.13 2	47	11.4	59.2	14.53 10	55	13.4	17.1	18.31 2	63	15.2	56.9
17.93 2	24	5.9	10.0	14.03 12	39	9.3	17.6	17.69 2	47	11.4	59.4	16.85 7	56	13.5	15.1	18.07 2	63	15.2	57.2
18.25 2	25	6.0	4.0	13.94 11	39	9.4	58.4	17.40 2	47	11.4	16.8	17.99 2	56	13.6	58.2	18.08 2	63	15.2	59.3
18.27 2	27	6.4	15.2	16.37 7	39	9.4	58.6	16.75 7	47	11.4	17.6	17.23 2	56	13.6	58.8	18.54 2	63	15.2	17.3
18.31 2	26	6.4	16.6	18.29 2	39	9.4	18.0	18.10 2	48	11.5	59.3	17.11 2	56	13.6	59.2	15.25 10	63	15.2	17.4
16.11 7	27	6.6	15.8	15.51 8	40	9.6	16.6	17.98 2	48	11.5	15.2	15.80 8	57	13.6	15.2	18.33 2	63	15.2	17.6
15.43 9	27	6.6	16.1	15.91 7	40	9.6	16.8	17.17 4	48	11.5	15.4	18.57 2	56	13.6	16.2	15.77 7	63	15.2	17.7
18.13 2	28	6.8	59.8	16.54 7	40	9.6	17.1	16.79 7	48	11.5	17.8	17.21 4	56	13.6	16.4	11.84 12	64	15.4	57.5
15.99 8	29	7.1	59.4	18.37 2	40	9.6	17.8	18.03 2	48	11.6	59.8	13.82 13	56	13.6	17.6	17.82 2	64	15.4	59.9
15.67 7	29	7.1	59.6	16.25 7	40	9.6	18.5	18.49 2	48	11.6	16.4	14.97 10	56	13.6	17.9	17.60 2	64	15.4	15.9
16.61 6	29	7.1	17.0	17.81 2	40	9.7	58.1	17.14 4	48	11.6	18.6	17.60 2	57	13.7	16.0	13.65 4	64	15.4	19.0
16.99 5	30	7.2	58.8	17.07 4	40	9.7	59.4	12.78 14	48	11.7	56.7	18.14 2	57	13.7	16.3	18.52 2	65	15.6	58.0
14.38 11	30	7.2	15.4	16.97 5	40	9.8	15.4	15.89 7	48	11.7	58.2	17.44 2	57	13.8	56.6	17.33 4	65	15.6	58.4
18.40 2	30	7.2	15.5	15.81 7	41	9.8	18.2	17.63 2	49	11.7	16.2	15.76 8	57	13.8	56.8	17.44 2	64	15.6	58.8
15.93 7	31	7.4	58.5	17.95 2	41	9.9	58.8	17.89 2	49	11.8	58.1	16.70 7	57	13.8	58.3	18.44 2	65	15.6	59.9
18.57 2	31	7.4	15.6	17.78 2	41	9.9	15.5	18.27 2	49	11.8	58.5	15.88 8	57	13.8	58.6	16.89 5	64	15.6	15.8
16.24 7	31	7.5	16.0	17.27 2	41	10.0	57.9	17.07 4	49	11.8	59.9	16.85 5	57	13.8	58.8	18.13 2	65	15.6	17.4
15.79 8	31	7.6	59.4	17.29 2	42	10.0	59.0	18.17 2	49	11.8	15.8	18.35 2	57	13.8	16.9	16.22 7	65	15.6	17.6
16.56 5	32	7.7	58.2	17.93 2	41	10.0	59.3	18.55 2	49	11.8	16.2	17.75 2	57	13.8	18.1	17.72 2	64	15.6	18.4
18.17 2	32	7.7	59.4	17.29 2	41	10.0	59.4	16.64 7	49	11.8	18.6	17.06 4	58	13.9	57.8	13.86 3	64	15.6	19.1

25 prec. + 69ˢ.3, + 4′ 31″

451s—510s				511s—570s				571s—630s				631s—690s				691s—750s			
Mag.	α 11^{m}	x	$y+70'$ / $y+10'$	Mag.	α 11^{m}	x	$y+70'$ / $y+10'$	Mag.	α 11^{m}	x	$y+70'$ / $y+10'$	Mag.	α 11^{m}	x	$y+10'$	Mag.	α 11^{m}	x	$y+10'$
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
17.78 2	5	15.7	58.9	15.90 7	13	17.6	18.0	17.96 2	24	20.4	16.8	17.73 2	30	21.8	2.2	16.65 7	34	22.7	4.2
17.27 2	5	15.8	57.8	17.87 2	13	17.7	59.1	17.99 2	24	20.4	17.0	16.49 7	31	21.8	6.4	18.28 2	35	22.8	4.0
17.85 2	6	15.8	15.2	15.75 7	13	17.7	59.9	18.02 2	26	20.8	59.5	15.14 10	30	21.8	7.2	16.86 3	34	22.8	8.2
17.56 2	6	15.8	17.2	15.87 7	14	17.8	57.5	18.34 2	26	20.8	15.1	18.39 2	30	21.8	7.8	17.93 2	34	22.8	8.8
16.81 7	6	15.9	58.5	18.11 2	14	17.8	59.1	15.15 10	26	20.8	15.8	17.51 2	30	21.8	8.9	18.37 2	34	22.8	11.3
16.54 7	6	15.9	59.1	16.02 7	14	17.8	16.0	18.50 2	26	20.8	16.4	17.31 4	30	21.8	11.0	17.13 4	34	22.8	12.9
18.05 2	6	16.0	58.0	15.79 7	14	17.8	18.1	14.97 10	26	20.8	16.8	17.27 4	30	21.8	12.4	16.18 5	35	22.8	13.1
17.26 4	6	16.0	59.3	17.69 2	14	17.9	58.6	16.23 7	27	20.9	59.4	17.29 4	30	21.8	13.2	17.57 2	34	22.8	13.6
14.97 10	6	16.0	16.0	17.69 2	14	17.9	59.3	16.66 7	27	21.0	59.4	16.50 7	30	21.8	13.6	17.99 2	34	22.8	14.5
16.88 6	6	16.0	17.0	17.66 2	14	17.9	16.4	17.31 4	27	21.0	6.3	15.77 6	30	21.8	14.5	14.31 11	34	22.8	14.8
18.38 2	6	16.0	17.1	15.92 7	15	18.0	57.6	14.41 10	27	21.0	7.4	16.76 2	30	21.8	15.6	14.59 10	35	22.9	1.5
17.91 2	7	16.1	58.6	16.15 7	15	18.0	58.0	17.89 2	27	21.0	9.4	17.09 4	31	21.9	4.8	17.48 2	35	22.9	4.4
16.17 7	7	16.1	16.0	15.56 8	15	18.0	58.8	18.26 2	27	21.0	14.8	17.12 5	31	21.9	7.9	14.95 10	35	22.9	6.5
18.27 2	7	16.1	17.0	18.03 2	15	18.0	59.6	16.48 7	27	21.1	0.0	17.77 2	31	21.9	8.0	18.35 2	35	22.9	7.5
18.37 2	7	16.2	57.5	17.48 2	15	18.0	17.0	13.58 12	27	21.1	1.2	17.83 2	31	22.0	1.1	17.09 4	35	22.9	13.0
16.91 5	7	16.2	15.2	12.27 12	15	18.0	17.4	18.73 2	27	21.1	6.3	17.51 2	31	22.0	1.6	18.10 2	35	22.9	13.6
17.45 2	7	16.2	16.6	17.15 4	15	18.1	58.4	16.81 5	27	21.1	9.5	18.44 2	31	22.0	3.8	16.65 7	35	23.0	1.2
17.03 4	7	16.2	17.3	17.29 2	15	18.1	59.4	17.01 5	27	21.1	11.8	15.20 10	31	22.0	4.4	18.25 2	35	23.0	6.0
17.07 4	7	16.2	17.6	17.36 2	15	18.1	59.7	17.94 2	27	21.1	12.4	18.42 2	31	22.0	5.2	17.97 2	35	23.0	7.8
17.44 2	7	16.2	18.2	17.02 3	16	18.2	58.3	18.38 2	27	21.1	13.8	16.93 7	31	22.0	8.0	18.38 2	35	23.0	7.9
17.26 4	7	16.2	18.5	17.05 3	16	18.2	58.4	16.84 7	28	21.2	59.5	14.57 10	31	22.0	10.2	16.64 7	35	23.0	11.8
18.31 2	8	16.3	15.8	17.19 2	15	18.2	58.5	17.09 4	28	21.2	0.4	15.94 7	31	22.0	12.2	16.95 4	35	23.0	12.2
18.47 2	8	16.3	16.4	16.11 7	16	18.2	59.9	16.74 5	28	21.2	0.6	18.15 2	31	22.0	15.0	16.87 4	35	23.0	12.6
17.13 4	8	16.4	58.3	18.31 2	15	18.2	17.0	16.51 7	28	21.2	1.2	17.27 2	32	22.1	1.4	18.30 2	35	23.0	13.3
18.37 2	8	16.4	58.7	16.23 7	15	18.2	17.4	18.55 2	28	21.2	6.2	17.67 2	32	22.1	3.7	18.07 2	35	23.0	13.6
18.42 2	8	16.4	59.4	16.82 6	15	18.2	17.8	17.21 4	28	21.2	6.9	17.23 4	32	22.1	6.9	17.51 2	36	23.1	1.4
17.41 2	8	16.4	15.6	18.01 2	16	18.4	58.5	18.29 2	28	21.2	7.4	17.24 4	32	22.1	9.2	18.05 2	36	23.1	6.4
17.27 2	8	16.4	16.0	17.70 2	16	18.4	16.8	18.52 2	28	21.2	8.4	16.68 7	32	22.2	0.3	18.38 2	36	23.1	7.7
18.17 2	8	16.4	16.4	15.94 7	16	18.4	18.4	18.61 2	28	21.2	9.9	17.23 4	32	22.2	1.4	18.25 2	36	23.1	12.0
17.87 2	8	16.5	57.6	18.39 2	17	18.6	17.6	18.21 2	28	21.2	10.8	18.09 2	32	22.2	3.2	18.01 2	36	23.1	13.4
16.70 5	8	16.5	59.5	16.43 7	17	18.7	58.9	17.82 2	28	21.2	11.6	17.40 2	32	22.2	3.3	12.24 12	36	23.2	4.4
16.60 7	9	16.6	57.4	16.04 7	18	18.8	57.9	17.59 2	28	21.2	14.2	17.89 2	32	22.2	3.4	18.38 2	36	23.2	5.5
17.91 2	9	16.6	15.6	17.19 2	18	18.8	58.8	17.55 2	28	21.2	16.2	18.42 2	32	22.2	5.3	15.45 9	36	23.2	8.3
18.37 2	9	16.6	16.9	17.11 4	18	18.8	0.0	17.24 2	28	21.3	1.4	18.30 2	32	22.2	7.0	17.87 2	36	23.2	9.8
14.75 10	9	16.6	18.2	15.12 9	18	18.8	17.2	18.09 2	28	21.3	2.0	17.65 2	32	22.2	7.4	17.31 2	36	23.2	11.4
17.79 2	9	16.7	57.6	18.09 2	18	18.9	58.1	18.17 2	28	21.3	8.8	18.32 2	32	22.2	8.9	16.46 7	36	23.2	11.5
16.94 4	9	16.7	58.1	17.45 2	18	18.9	15.8	17.61 2	28	21.3	10.1	17.17 4	32	22.2	12.4	17.61 2	36	23.2	11.7
17.17 3	9	16.7	16.6	17.21 4	18	18.9	16.7	17.44 2	29	21.4	1.4	16.70 7	32	22.2	13.1	17.65 2	37	23.3	4.2
17.21 4	9	16.7	17.0	15.43 8	19	19.0	16.8	17.69 2	28	21.4	5.2	17.47 2	32	22.2	13.3	17.33 2	37	23.3	6.4
16.76 7	10	16.8	15.1	18.16 2	19	19.0	17.4	18.15 2	29	21.4	6.0	15.74 5	32	22.2	15.4	18.15 2	37	23.3	7.2
17.27 4	9	16.8	15.4	17.07 2	19	19.1	58.0	17.17 4	29	21.4	8.8	17.33 2	32	22.3	1.5	18.41 2	37	23.3	7.4
17.30 2	10	16.8	17.2	15.87 7	19	19.1	15.6	17.91 2	29	21.4	10.3	17.66 2	32	22.3	3.4	16.83 7	37	23.3	8.5
18.21 2	10	16.9	58.0	16.97 5	19	19.2	59.4	17.16 4	29	21.4	13.8	17.21 4	32	22.3	5.9	14.34 10	37	23.3	13.1
16.85 7	10	17.0	16.9	17.64 2	19	19.2	0.0	18.20 2	29	21.5	10.4	15.76 8	33	22.4	4.3	17.92 2	37	23.4	2.2
14.99 9	10	17.0	17.4	16.78 5	20	19.3	57.9	17.13 4	29	21.5	13.3	16.51 7	33	22.4	4.5	17.22 2	37	23.4	2.7
17.79 2	11	17.1	57.5	16.86 5	20	19.3	59.5	17.39 2	29	21.6	2.2	17.46 2	33	22.4	7.0	13.94 11	37	23.4	3.7
17.03 4	11	17.2	58.0	15.49 8	20	19.4	16.0	17.52 2	29	21.6	2.5	14.30 12	33	22.4	10.0	17.90 2	37	23.4	4.4
12.08 11	11	17.2	15.6	17.21 4	20	19.4	16.1	17.72 2	29	21.6	5.4	16.21 7	33	22.4	12.8	15.46 9	37	23.4	5.6
17.28 3	11	17.2	16.4	18.01 2	20	19.4	17.4	13.75 13	29	21.6	5.7	16.67 4	33	22.5	4.4	17.61 2	37	23.4	6.3
16.59 7	11	17.2	17.3	16.31 7	21	19.5	58.6	16.74 7	30	21.6	6.1	15.54 9	33	22.5	9.6	18.11 2	37	23.4	6.8
16.62 7	11	17.2	18.4	17.60 2	21	19.5	59.4	17.21 4	30	21.6	8.9	16.96 7	33	22.5	12.7	15.85 7	37	23.4	10.5
16.60 7	12	17.4	57.6	18.54 2	21	19.5	15.4	17.02 6	29	21.6	10.2	14.29 11	33	22.5	13.5	13.98 12	37	23.4	10.9
17.95 2	12	17.4	58.4	15.95 7	22	19.8	15.6	17.64 2	30	21.6	10.8	16.63 7	34	22.6	0.8	17.43 2	37	23.4	11.6
18.41 2	12	17.4	59.7	17.17 2	22	19.9	58.4	17.21 4	29	21.6	11.0	17.93 2	33	22.6	1.7	16.71 5	37	23.4	12.2
18.01 2	12	17.4	15.6	18.39 2	23	20.0	15.7	16.31 5	30	21.6	14.2	17.37 2	34	22.6	2.4	18.31 2	37	23.4	12.4
18.56 2	12	17.5	58.3	18.25 2	23	20.1	16.5	17.97 2	30	21.6	15.4	16.78 5	33	22.6	8.2	16.95 7	37	23.5	10.6
18.44 2	13	17.5	15.8	18.32 2	23	20.1	16.6	16.39 7	30	21.7	0.3	17.97 2	33	22.6	8.4	17.61 2	38	23.6	2.2
16.23 7	13	17.6	16.8	15.97 7	23	20.2	59.5	16.81 7	30	21.7	1.0	18.14 2	34	22.6	11.4	17.10 4	38	23.6	3.9
13.99 12	13	17.6	17.6	14.79 10	24	20.2	15.6	18.47 2	30	21.7	3.8	16.06 7	33	22.6	12.0	10.60 8	38	23.6	6.6
17.17 4	13	17.6	17.9	14.18 11	24	20.4	58.6	16.67 7	30	21.8	0.8	16.82 7	34	22.6	12.4	16.44 7	38	23.6	8.7

25 prec. + 69$^{\mathrm{s}}$3, + 4′ 31″

20^{h} Area 88. Supplementary Stars + 15°

751*s*—760*s*					761*s*—770*s*					771*s*—780*s*					781*s*—790*s*					791*s*—800*s*				
Mag.		α 11^{m}	x	$y+10'$	Mag.		α 11^{m}	x	$y+10'$	Mag.		α 11^{m}	x	$y+10'$	Mag.		α 11^{m}	x	$y+10'$	Mag.		α 11^{m}	x	$y+10'$
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
16.90	6	38	23.6	8.9	17.40	2	38	23.8	11.0	16.65	7	40	24.0	5.2	17.39	2	41	24.3	7.2	16.97	6	42	24.6	8.6
17.79	2	38	23.6	9.4	17.01	4	38	23.8	11.2	15.08	10	39	24.0	11.4	17.17	4	41	24.3	7.6	17.43	2	42	24.6	9.4
16.45	7	38	23.6	10.0	17.57	2	39	23.8	13.0	18.25	2	40	24.0	11.8	17.13	4	41	24.3	8.0	17.17	4	42	24.6	9.6
15.52	8	38	23.6	11.7	17.73	2	39	23.9	4.2	14.98	9	39	24.0	12.5	18.04	2	41	24.3	12.0	16.26	7	42	24.6	9.9
13.95	12	38	23.6	12.2	13.37	13	39	23.9	5.1	16.88	5	40	24.1	4.0	15.04	10	41	24.4	4.6	17.27	2	42	24.6	10.5
17.46	2	38	23.7	2.4	16.73	7	39	23.9	8.4	17.99	2	40	24.1	8.9	16.08	7	41	24.4	6.2	15.51	8	43	24.8	7.4
16.63	7	38	23.7	9.2	17.27	2	39	23.9	8.6	18.19	2	40	24.1	9.1	18.34	2	41	24.4	6.3	16.11	7	43	25.0	7.4
16.61	7	38	23.7	11.8	18.32	2	39	23.9	11.8	18.32	2	40	24.2	5.0	17.79	2	41	24.4	11.2	15.65	7	44	25.0	8.6
17.33	4	38	23.8	8.0	15.52	8	39	23.9	12.6	17.08	4	40	24.2	7.0	15.15	10	42	24.6	5.7	17.73	2	44	25.1	7.1
18.20	2	38	23.8	9.1	16.95	5	39	24.0	4.2	16.49	7	40	24.2	7.9	17.22	2	42	24.6	8.4	14.87	10	44	25.1	8.7

25 prec. + $69^{s}.3$, + 4′ 32″

21^{h} Area 89. Center for 1900: 21^{h} 8^{m} + 15° 10′ (15′ × 15′) + 15°

1—40					41—80					81—120					121—160					161—200				
Mag.		α 7^{m}	x	$y+10'$	Mag.		α 7^{m}	x	$y+10'$	Mag.		α 7^{m}	x	$y+10'$	Mag.		α 8^{m}	x	$y+10'$	Mag.		α 8^{m}	x	$y+10'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
17.25	3	39.4	95.03	11 28	17.81	3	46.7	96.80	16 19	17.77	3	53.1	98.32	11 09	16.08	9	1.1	0.28	8 26	16.49	9	10.2	2.47	8 56
18.41	1	40.2	95.22	19 36	17.96	2	46.8	96.81	13 55	16.39	9	53.1	98.32	13 34	17.60	3	1.5	0.36	15 39	18.61	3	10.5	2.52	12 14
16.58	6	40.2	95.22	6 23	17.43	3	47.4	96.96	13 57	16.22	9	53.2	98.34	5 45	18.52	3	1.8	0.42	12 17	17.88	3	10.5	2.53	8 29
16.52	7	40.5	95.30	14 45	17.75	3	47.4	96.96	14 23	13.78	12	53.4	98.40	11 03	16.63	9	2.1	0.50	9 44	16.80	6	10.5	2.53	8 11
18.32	3	40.8	95.37	12 31	17.53	3	47.6	97.00	14 45	17.89	3	53.4	98.41	18 38	17.76	3	2.2	0.52	16 12	17.79	3	10.8	2.59	6 32
18.28	3	40.8	95.37	5 44	16.60	6	47.7	97.03	10 58	15.89	9	53.7	98.47	7 23	17.39	3	2.7	0.65	9 39	18.40	2	10.9	2.62	9 57
18.72	2	41.0	95.40	10 15	16.61	5	47.7	97.03	19 37	16.86	5	53.7	98.48	13 21	18.56	2	2.9	0.71	9 20	8.70w	6	11.0	2.66	10 38
17.85	3	41.0	95.41	13 30	16.58	7	47.8	97.05	10 43	15.47	10	53.8	98.51	8 40	18.86	1	3.2	0.77	12 59	18.58	3	11.2	2.70	8 49
15.30	2	41.1	95.46	19 47	17.17	3	47.9	97.08	19 24	18.44	2	54.1	98.57	18 39	18.48	2	3.3	0.81	11 33	16.16	8	11.6	2.81	14 11
15.81	10	41.2	95.46	13 52	17.97	3	48.0	97.09	18 32	17.93	3	54.1	98.57	18 13	18.38	2	3.5	0.85	7 38	17.32	3	11.7	2.82	19 25
16.09	10	41.4	95.49	9 41	17.94	3	48.2	97.14	18 21	17.07	3	54.2	98.61	14 50	17.42	3	3.6	0.87	15 47	15.79	9	11.7	2.83	13 45
15.74	9	41.6	95.58	17 04	17.89	3	48.2	97.15	10 45	16.98	5	54.4	98.65	9 28	16.86	5	3.8	0.92	5 38	18.94	1	11.9	2.87	9 29
17.76	3	41.6	95.58	16 42	16.87	5	48.2	97.15	13 59	18.32	2	54.5	98.67	8 56	18.09	3	4.1	1.01	13 17	16.95	5	12.0	2.90	11 55
16.45	8	41.9	95.63	9 58	17.08	3	48.3	97.17	19 56	18.50	1	54.9	98.77	12 47	17.94	3	4.2	1.02	8 32	16.05	10	12.1	2.93	18 13
16.76	5	42.2	95.71	10 32	18.05	3	48.3	97.18	6 27	18.00	3	55.2	98.86	8 20	18.42	2	4.6	1.09	8 47	18.94	1	12.2	2.95	12 39
17.88	3	42.3	95.72	15 20	15.27	11	48.6	97.25	8 41	18.68	1	56.0	99.02	16 15	18.00	3	4.8	1.14	14 19	17.24	5	12.4	2.99	9 43
17.47	3	42.5	95.78	15 31	18.02	3	48.6	97.26	13 40	18.36	3	56.2	99.08	16 45	17.32	3	5.0	1.20	18 36	17.85	3	12.6	3.04	9 35
17.75	3	42.9	95.88	7 49	18.13	3	49.1	97.37	10 44	18.53	2	56.4	99.13	10 14	18.88	2	5.1	1.23	6 10	17.37	3	13.3	3.20	18 46
17.72	3	43.4	96.00	12 49	18.77	1	49.3	97.42	10 25	11.65	16	56.8	99.23	15 43	17.67	3	5.6	1.34	15 45	16.46	8	13.5	3.26	5 15
14.44	12	43.4	96.01	8 05	18.83	2	49.3	97.43	7 24	16.98	3	56.9	99.25	18 03	18.86	1	5.8	1.41	8 54	17.97	3	13.5	3.27	9 46
16.38	7	44.0	96.14	16 54	18.35	2	49.4	97.46	6 59	15.68	9	56.9	99.26	8 07	18.42	2	6.0	1.45	14 43	18.29	3	13.6	3.28	13 19
17.60	3	44.1	96.16	7 14	18.21	3	49.6	97.50	19 59	17.70	3	57.3	99.36	15 44	19.03	1	6.0	1.46	12 34	16.85	5	13.9	3.35	18 04
16.84	5	44.3	96.21	6 32	16.28	10	49.6	97.51	15 52	18.26	3	57.5	99.39	13 11	16.62	5	6.2	1.49	16 48	16.82w	4	14	3.4	17 48
18.32	3	44.3	96.21	13 19	16.81	5	49.8	97.55	9 19	18.38	2	57.8	99.47	14 33	16.03	9	6.5	1.57	7 23	15.72	8	14.1	3.40	17 24
16.80	5	44.4	96.22	14 20	18.36	3	49.8	97.55	5 34	18.10	2	57.8	99.48	12 29	16.74	5	6.6	1.61	16 14	18.29	3	14.5	3.50	12 51
17.64	3	45.2	96.42	5 13	18.07	3	49.8	97.56	17 22	16.24	9	58.0	99.53	8 46	18.47	3	7.7	1.86	7 49	16.18	9	14.6	3.53	6 17
18.20	3	45.2	96.42	17 09	17.09	3	50.1	97.60	13 11	18.11	3	58.2	99.57	6 59	18.04	3	7.7	1.86	12 31	18.32	2	14.9	3.60	10 30
17.69	3	45.3	96.45	15 31	16.18	9	50.2	97.62	10 33	16.93	5	58.3	99.60	13 15	18.72	2	7.8	1.88	11 04	17.45	3	14.9	3.61	15 55
16.41	9	45.3	96.46	12 38	17.15	3	50.2	97.63	7 24	17.17	3	58.8	99.71	11 41	17.45	3	7.9	1.90	5 44	16.83	5	15.0	3.63	11 17
16.82	5	45.5	96.51	15 28	18.83	2	50.2	97.65	15 56	18.52	2	58.9	99.72	15 50	18.52	2	8.0	1.92	18 13	18.62	3	15.1	3.65	11 51
18.70	2	45.5	96.51	13 59	17.68	3	50.8	97.78	16 59	17.11	3	59.2	99.81	14 44	17.89	3	8.2	1.98	8 40	17.73	3	15.2	3.67	15 25
17.81	3	45.6	96.52	11 04	12.39	15	50.9	97.80	9 31	15.94	10	59.3	99.83	18 04	15.00	11	8.3	2.00	12 11	18.38	3	15.4	3.73	10 59
18.25	3	45.6	96.53	16 45	15.15	11	51.0	97.82	8 33	18.11	3	59.5	99.87	6 32	16.55	8	8.5	2.06	7 17	18.40	2	15.8	3.83	7 05
17.87	1	45.7	96.55	19 36	16.05	9	51.2	97.88	18 54	17.74	3	59.6	99.91	5 25	14.87	11	9.0	2.17	10 22	16.56	8	15.8	3.83	6 32
17.21	3	45.8	96.57	10 48	16.25	10	51.3	97.90	16 17	17.52	3	59.9	99.97	9 41	15.08	11	9.1	2.21	19 26	17.92	3	16.3	3.94	12 58
16.62	5	45.9	96.60	19 18	15.99	9	51.4	97.93	8 27	18.01	3	59.9	99.97	18 59	18.44	2	9.4	2.28	18 22	19.03	1	16.5	3.99	11 54
17.67	3	46.1	96.63	8 49	17.50	3	51.7	98.01	11 13	18.22	2	60.0	0.00	7 04	18.60	2	9.6	2.32	16 41	17.53	3	16.7	4.02	19 00
14.88	11	46.1	96.63	5 14	17.67	3	51.8	98.03	5 25	11.49	16	60.1	0.03	12 38	18.20	3	9.6	2.33	5 36	16.93	5	16.7	4.03	8 34
15.86	8	46.5	96.74	17 38	11.08w	13	52.0	98.07	15 00	17.15	3	60.3	0.08	13 57	15.85	9	9.7	2.36	7 13	18.12	3	17.2	4.16	5 13
15.58	10	46.6	96.76	13 21	16.39	9	52.5	98.20	7 45	16.39	9	60.6	0.14	5 05	17.99	3	9.9	2.39	18 32	18.50	2	17.2	4.16	11 06

25 prec. + $70^{s}.7$, + 6′ 6″

Area 89

201—240				
Mag.		α 8^{m}	x	$y+10'$
		s	′	′ ″
18.63	3	17.4	4.19	11 31
18.60	2	17.7	4.28	12 30
14.62	11	18.0	4.34	5 56
17.39	3	18.3	4.42	9 29
18.86	1	18.3	4.43	13 08
17.09	3	18.4	4.46	13 39
16.94	5	18.5	4.47	9 58
17.12	5	18.6	4.49	10 38
16.47	9	18.7	4.52	8 11
18.12	3	18.7	4.53	6 18
15.52	9	18.8	4.54	14 21
16.68	7	18.9	4.57	11 11
16.44	8	19.1	4.62	18 17
18.11	3	19.3	4.67	6 10
18.83	2	19.7	4.76	17 49
18.60	2	19.8	4.78	11 31
17.28	3	20.3	4.89	19 58
17.43	3	20.3	4.90	5 52
17.14	5	20.4	4.93	6 51
16.01	9	20.6	4.98	15 21
18.78	2	20.7	5.01	5 37
18.28	3	20.9	5.05	7 42
15.87	9	21.3	5.16	5 17
17.37	3	21.4	5.16	16 16
17.67	3	21.5	5.18	19 29
15.27	9	21.5	5.20	14 12
17.53	3	21.5	5.21	10 11
16.85	6	21.8	5.28	12 35
16.21	9	21.9	5.28	19 09
18.78	2	22.5	5.42	5 21
18.17	2	22.6	5.45	11 05
18.77	1	22.6	5.46	16 15
18.35	3	22.7	5.48	13 43
18.83	2	23.0	5.54	16 23
16.37	9	23.2	5.59	8 18
14.83	11	23.2	5.61	6 47
17.77	3	23.2	5.61	11 37
17.70	3	23.4	5.64	9 48
17.73	3	23.5	5.66	17 41
15.11	8	23.5	5.68	12 32

241—280				
Mag.		α 8^{m}	x	$y+10'$
		s	′	′ ″
18.14	2	23.6	5.69	10 34
18.41	1	23.6	5.69	14 05
18.26	3	23.8	5.72	19 56
18.14	2	23.8	5.74	12 07
17.66	3	24.0	5.78	19 20
15.90	9	24.1	5.80	16 49
17.80	3	24.1	5.82	11 03
13.64	15	24.6	5.94	10 49
18.29	3	24.8	5.99	11 39
16.31	9	24.9	6.01	16 00
16.77	5	25.0	6.02	16 56
17.85	3	25.2	6.07	19 06
16.59	6	25.5	6.15	18 28
16.87	6	25.5	6.16	12 37
18.43	3	25.9	6.24	15 29
16.53	8	25.9	6.26	5 43
12.54	14	26.0	6.28	16 39
17.51	3	26.1	6.29	15 22
18.10	2	26.4	6.38	12 55
18.05	2	27.0	6.52	6 44
17.09	3	27.0	6.53	11 11
13.96	12	27.1	6.56	5 18
14.68	11	27.4	6.59	18 48
18.07	3	27.6	6.65	17 35
17.57	3	27.6	6.67	11 11
16.88	4	27.7	6.70	14 07
17.63	3	27.9	6.75	13 12
17.60	3	28.2	6.79	9 03
16.77	5	28.5	6.88	7 36
17.03	5	28.6	6.90	7 09
16.30	9	28.9	6.97	15 38
17.18w	2	29	7.0	18 18
16.56	7	29.1	7.03	6 34
18.15	3	29.3	7.07	16 52
13.86	14	29.4	7.11	7 05
18.06	3	29.5	7.12	7 44
17.77	3	29.7	7.16	16 28
18.01	3	29.8	7.19	14 25
17.17	3	29.9	7.20	19 33
18.78	2	30.0	7.25	6 36

281—320				
Mag.		α 8^{m}	x	$y+10'$
		s	′	′ ″
15.37	10	30.1	7.27	8 06
16.53	8	30.2	7.28	15 08
18.50	1	30.5	7.35	19 37
15.86	9	30.5	7.35	5 58
17.81	3	30.8	7.45	11 31
17.04	5	31.4	7.58	8 40
15.59	10	31.5	7.60	19 31
17.84	2	32.0	7.73	13 17
17.79	3	32.2	7.75	19 00
18.24	3	32.3	7.77	16 35
17.98	2	32.3	7.78	14 47
18.77	1	32.3	7.79	10 29
16.12	8	32.4	7.82	9 27
17.92	3	32.8	7.93	8 19
16.06	9	32.9	7.96	7 47
16.97	5	33.1	8.00	9 40
17.22	3	33.3	8.02	18 51
17.75	3	33.3	8.05	7 55
17.73	3	33.6	8.13	5 28
18.12	3	33.6	8.13	14 20
18.42	2	33.6	8.13	18 46
18.14	3	33.7	8.14	6 24
18.12	3	33.7	8.16	5 24
17.82	3	33.7	8.16	14 47
17.53	3	33.8	8.17	11 23
18.44	2	34.0	8.19	16 52
18.04	3	34.1	8.23	17 53
17.88	3	34.1	8.24	14 58
17.94	3	34.2	8.27	5 15
16.42	9	34.3	8.28	9 12
18.28	2	34.4	8.31	14 11
16.77	5	34.5	8.32	14 39
18.23	3	35.0	8.46	14 01
15.14	10	35.3	8.52	13 02
17.69	3	35.3	8.52	5 01
18.07	3	35.4	8.55	7 18
18.05	3	35.5	8.58	8 23
17.65	3	35.7	8.62	9 44
16.43	8	36.2	8.73	18 29
16.38	9	36.3	8.77	7 56

321—355				
Mag.		α 8^{m}	x	$y+10'$
		s	′	′ ″
18.21	3	36.4	8.79	6 05
16.28	3	36.5	8.83	6 30
18.09	3	36.8	8.90	5 26
18.78	2	36.8	8.91	10 35
17.68	1	36.8	8.91	14 00
18.21	3	37.1	8.95	16 39
17.79	3	37.5	9.02	19 49
16.80	5	37.5	9.03	11 03
18.01	3	37.9	9.13	16 24
17.89	3	38.0	9.17	14 56
17.63	3	38.2	9.20	16 38
17.81	3	38.2	9.21	16 44
17.37	3	38.2	9.23	7 43
15.96	7	38.4	9.28	8 43
14.66	10	38.5	9.31	6 31
18.03	3	38.6	9.32	14 01
12.54	15	38.7	9.36	13 00
17.54	3	38.8	9.37	13 58
15.74	10	38.9	9.38	15 23
16.72	5	38.9	9.39	10 32
18.35	3	39.0	9.43	11 40
15.93	9	39.2	9.47	8 50
18.36	2	39.6	9.56	18 19
16.62	5	39.6	9.57	6 25
17.70	3	39.7	9.60	10 13
17.59	3	39.8	9.62	10 00
18.50	2	40.3	9.72	8 53
15.29	9	40.3	9.73	13 33
16.46	5	40.5	9.74	18 44
17.84	3	40.5	9.74	18 18
18.06	2	40.5	9.76	9 28
15.62	4	40.5	9.78	8 44
17.81	3	40.6	9.81	10 53
10.66w	11	40.6	9.81	6 39
14.64	7	40.8	9.86	8 43

25 prec. + $70^{s}.7$, + 6′ 7″

21^{h} + 15°

Area 89. Supplementary Stars

1s—10s				
Mag.		α 7^{m}	x	$y+10'$
		s	′	′
17.82	2	25	91.4	12.1
17.56	2	26	91.8	9.0
14.25	10	27	92.0	7.1
17.58	2	27	92.0	7.4
17.30	2	27	92.0	11.6
18.00	2	28	92.3	8.6
16.13	7	28	92.3	10.0
15.97	7	29	92.4	5.6
16.07	7	29	92.4	8.0
17.96	2	28	92.4	13.4

11s—20s				
Mag.		α 7^{m}	x	$y+10'$
		s	′	′
17.82	2	29	92.6	8.7
17.82	2	29	92.6	8.8
18.11	2	29	92.6	10.5
17.09	2	29	92.6	12.4
17.07	2	30	92.6	15.0
16.08	7	30	92.7	8.4
18.00	2	30	92.8	6.3
17.40	2	31	92.9	12.3
16.34	5	31	93.0	7.2
17.53	2	31	93.0	16.3

21s—30s				
Mag.		α 7^{m}	x	$y+10'$
		s	′	′
16.69	4	32	93.2	5.4
16.67	4	32	93.2	13.6
17.32	2	32	93.3	17.1
17.08	2	32	93.4	11.9
17.60	2	33	93.4	13.2
17.53	2	33	93.5	12.6
17.95	2	33	93.6	8.3
17.72	2	33	93.6	10.8
13.41	13	33	93.6	13.7
16.59	4	33	93.6	17.3

31s—40s				
Mag.		α 7^{m}	x	$y+10'$
		s	′	′
17.76	2	34	93.7	5.1
17.70	2	34	93.8	16.8
15.14	8	35	93.9	4.0
16.76	4	35	93.9	12.4
16.45	6	36	94.1	5.6
17.56	2	36	94.1	14.0
15.34	8	36	94.2	6.2
17.50	2	36	94.2	14.6
15.87	8	36	94.3	10.4
15.00	9	37	94.4	7.0

41s—50s				
Mag.		α 7^{m}	x	$y+10'$
		s	′	′
17.58	2	37	94.4	10.4
18.13	2	37	94.4	15.2
18.11	2	37	94.5	4.8
17.65	2	37	94.5	17.5
14.72	9	37	94.5	18.4
17.38	2	38	94.6	3.6
17.82	2	38	94.6	10.5
15.18	9	38	94.7	15.8
17.28	2	38	94.7	16.6
15.19	9	38	94.8	7.3

25 prec. + $70^{s}.7$, + 6′ 6″

51s—110s				111s—170s				171s—230s				231s—270s			
Mag.	α 7^{m}	x	$\frac{y+70'}{y+10'}$	Mag.	α 8^{m}	x	$\frac{y+70'}{y+10'}$	Mag.	α 8^{m}	x	$y+10'$	Mag.	α 8^{m}	x	$y+10'$
	s	′	′		s	′	′		s	′	′		s	′	′
16.48 6	38	94.8	8.4	16.67 4	4	1.0	20.4	16.27 7	31	7.4	1.5	16.60 4	47	11.4	9.0
17.95 2	38	94.8	9.6	17.20 2	5	1.2	1.0	17.84 2	31	7.4	2.6	17.58 2	48	11.6	9.4
16.23 8	38	94.8	10.8	17.40 2	5	1.2	20.4	17.97 2	31	7.4	3.4	15.66 7	49	11.8	8.0
18.20 2	38	94.8	15.4	17.70 2	5	1.2	21.2	16.16 7	33	7.8	1.1	17.80 2	49	11.8	12.6
18.20 2	38	94.8	15.8	16.06 7	5	1.2	21.4	16.33 7	33	8.0	1.2	18.20 2	49	11.9	9.2
16.20 7	38	94.8	17.1	16.44 7	5	1.3	4.8	18.04 2	34	8.2	1.4	17.58 2	49	11.9	11.7
17.96 2	39	94.9	3.8	17.93 2	5	1.3	21.6	17.72 2	34	8.2	2.2	18.02 2	49	11.9	14.4
17.74 2	39	94.9	12.0	17.90 2	6	1.4	2.4	17.34 2	34	8.3	2.1	18.00 2	50	12.0	7.4
17.40 2	39	94.9	14.4	16.42 7	6	1.4	4.6	17.89 2	36	8.6	2.5	17.91 2	50	12.0	8.0
17.46 2	39	94.9	18.6	17.70 2	6	1.4	21.3	18.08 2	36	8.6	3.4	17.34 2	50	12.0	8.4
16.34 6	39	95.0	2.6	16.67 4	7	1.6	59.7	17.60 2	37	8.8	3.8	16.06 6	50	12.0	11.6
17.52 2	39	95.0	3.1	17.17 2	6	1.6	3.6	14.75 9	37	8.9	1.3	14.93 9	50	12.1	7.0
17.91 2	39	95.0	4.1	16.43 6	7	1.7	1.0	18.06 2	37	8.9	3.6	17.62 2	50	12.1	8.3
17.88 2	39	95.0	15.4	14.27 11	7	1.7	1.2	17.07 2	38	9.1	3.8	16.58 4	50	12.1	15.9
17.28 2	39	95.0	18.2	18.00 2	7	1.8	0.2	16.24 7	38	9.2	3.4	16.65 4	51	12.2	5.6
17.54 2	40	95.2	3.6	17.98 2	7	1.8	2.6	17.17 2	38	9.2	4.4	16.42 5	51	12.2	9.6
17.18 2	40	95.2	4.6	18.20 2	8	1.9	1.7	17.20 2	39	9.4	2.6	16.14 7	51	12.3	5.0
17.84 2	41	95.4	4.2	17.82 2	8	1.9	4.7	17.62 2	39	9.4	3.4	16.07 7	51	12.3	8.2
18.04 2	42	95.8	4.8	17.67 2	8	2.0	0.9	15.71 7	40	9.6	2.8	17.39 2	51	12.3	11.6
17.29 2	43	95.9	2.5	17.91 2	8	2.0	22.0	16.27 7	40	9.6	3.0	16.02 7	51	12.3	16.4
18.13 2	43	96.0	4.0	18.08 2	10	2.4	2.0	15.08 9	40	9.6	4.6	16.16 7	51	12.4	6.6
13.20 13	45	96.4	2.2	16.74 4	11	2.6	0.4	18.06 2	40	9.6	5.0	18.02 2	52	12.6	8.4
16.29 7	46	96.6	4.6	15.22 6	11	2.6	1.9	16.67 4	40	9.8	1.8	17.88 2	52	12.6	9.4
17.80 2	47	96.8	20.4	17.62 2	11	2.7	2.4	17.50 2	41	9.8	2.0	14.95 9	52	12.6	16.1
18.04 2	48	97.0	2.4	17.91 2	11	2.7	20.4	17.74 2	40	9.8	2.4	17.65 2	53	12.7	11.6
17.50 2	48	97.2	1.2	16.86 4	12	2.9	3.6	17.93 2	42	10.0	6.8	17.91 2	53	12.8	14.2
16.68 4	48	97.2	3.7	17.57 2	13	3.1	4.4	18.11 2	42	10.0	10.1	17.87 2	53	12.9	12.2
18.04 2	49	97.3	3.4	13.02 13	14	3.3	21.8	17.14 2	42	10.1	15.2	17.68 2	54	13.0	7.4
16.43 7	49	97.4	2.8	16.78 4	14	3.4	1.4	17.19 2	42	10.2	11.0	16.26 7	54	13.0	13.6
17.60 2	50	97.6	2.0	14.89 8	15	3.6	0.2	17.27 2	42	10.2	19.2	16.26 7	54	13.1	9.8
17.97 2	50	97.6	2.8	13.08 12	17	4.0	0.3	17.94 2	43	10.3	2.4	13.84 10	54	13.1	11.1
17.93 2	50	97.7	2.8	17.66 2	17	4.1	21.7	18.13 2	43	10.3	9.7	18.00 2	54	13.1	11.8
17.80 2	50	97.7	20.5	11.53 11	17	4.2	59.9	16.04 7	43	10.3	10.5	16.18 7	54	13.1	12.4
15.92 7	50	97.7	20.8	17.88 2	17	4.2	3.6	16.59 4	43	10.3	18.8	18.00 2	55	13.2	7.5
17.08 2	53	98.2	2.3	15.39 7	18	4.2	20.4	17.64 2	43	10.4	3.9	17.20 2	55	13.2	12.4
16.23 7	52	98.2	21.0	15.98 7	18	4.3	21.2	10.39 11	43	10.4	13.9	17.34 2	55	13.2	14.0
14.98 9	53	98.3	20.6	18.06 2	18	4.4	0.8	14.72 9	43	10.4	19.1	17.20 2	56	13.6	10.4
16.56 4	54	98.6	1.5	18.08 2	18	4.4	2.2	13.59 12	44	10.5	8.3	16.33 7	57	13.7	8.0
17.82 2	55	98.8	0.3	17.84 2	19	4.6	0.8	15.94 7	44	10.5	17.4	16.17 7	57	13.8	8.8
17.47 2	56	99.0	1.0	18.06 2	19	4.6	1.2	17.82 2	44	10.6	2.7	18.04 2	57	13.8	10.5
17.14 2	56	99.0	21.2	17.16 2	19	4.6	4.0	17.26 2	44	10.6	6.4				
14.38 10	56	99.1	4.6	16.38 7	20	4.8	3.2	16.30 7	44	10.6	7.4				
15.45 8	56	99.1	4.8	18.04 2	22	5.2	21.0	13.63 11	44	10.6	16.9				
16.41 5	57	99.2	0.2	15.82 6	23	5.4	2.9	16.31 7	44	10.7	6.0				
18.16 2	58	99.4	3.2	17.69 2	22	5.4	4.4	18.04 2	44	10.7	10.2				
17.63 2	57	99.4	3.9	13.13 13	23	5.4	20.8	17.76 2	45	10.8	2.6				
17.41 2	58	99.5	1.6	17.06 2	24	5.7	4.2	14.78 10	45	10.8	4.2				
17.93 2	59	99.6	20.6	17.96 2	24	5.8	4.4	16.90 2	45	10.8	5.2				
13.64 11	59	99.6	20.7	14.75 9	24	5.9	1.5	17.98 2	45	10.9	8.0				
15.71 6	59	99.8	0.4	17.62 2	24	5.9	2.8	17.88 2	45	10.9	11.3				
16.76 4	59	99.8	3.4	17.72 2	24	5.9	20.2	15.70 7	45	10.9	12.4				
16.15 7	60	99.9	1.8	17.71 2	25	6.0	2.2	17.86 2	46	11.0	3.3				
17.02 2	60	99.9	21.2	17.58 2	25	6.1	2.4	18.02 2	45	11.0	14.7				
17.94 2	60	0.0	59.8	17.49 2	27	6.5	1.2	17.35 2	46	11.0	16.4				
13.10 15	60	0.1	3.8	17.55 2	27	6.6	0.4	17.62 2	45	11.0	17.4				
15.09 9	61	0.2	2.7	17.54 2	27	6.6	2.3	16.66 4	47	11.2	6.0				
17.58 2	61	0.3	4.2	18.00 2	27	6.6	20.4	16.48 6	46	11.2	8.4				
18.30 2	63	0.8	4.6	18.00 2	28	6.8	20.6	17.84 2	46	11.2	16.8				
17.80 2	64	0.9	0.1	17.57 2	29	6.9	3.6	18.08 2	47	11.3	10.4				
18.04 2	64	1.0	0.0	18.18 2	29	7.0	4.3	16.72 4	47	11.4	6.6				

Area 90. Center for 1900: $22^{h}\ 12^{m} + 15° 10'$ $(15' \times 15')$

1—60				61—120				121—154				1s—60s				61s—91s			
Mag.	α 12^{m}	x	$y+10'$	Mag.	α 12^{m}	x	$y+10'$	Mag.	α 13^{m}	x	$y+10'$	Mag.	α 11^{m}	x	$y+10'$	Mag.	α 13^{m}	x	$y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′		s	′	′
18.10 1	15.8	3.79	19 53	19.58 2	39.5	9.53	16 29	17.65 3	3.4	15.28	18 19	17.23 2	59	99.7	12.0	17.45 2	0	14.4	24.4
17.65 3	15.8	3.82	7 30	17.89 3	40.4	9.73	16 46	16.24 9	4.6	15.58	15 04	17.52 2	60	0.0	14.6	16.84 5	2	15.0	3.8
17.78 3	16.6	4.00	18 47	18.11 3	40.6	9.80	14 49	15.49 8	4.6	15.58	18 43	15.82 7	62	0.5	14.4	16.86 3	4	15.4	2.8
16.59 8	16.9	4.07	16 56	13.45 13	40.9	9.87	12 49	18.28 2	5.1	15.72	14 21	17.23 2	62	0.6	9.7	15.44 7	5	15.8	4.4
19.04 2	17.2	4.14	13 27	19.30 2	41.0	9.91	7 27	17.60 3	5.2	15.74	17 50	13.96 11	65	1.2	14.1	16.99 3	8	16.5	22.5
16.99 6	17.6	4.24	10 31	18.41 3	44.4	10.69	16 18	16.93 6	5.3	15.78	5 26	16.71 6	65	1.2	17.4	17.15 2	9	16.8	21.4
14.19 11	18.4	4.42	17 50	17.19 6	44.5	10.74	9 17	15.00 10	5.5	15.82	18 56	15.46 7	66	1.4	9.1	17.91 2	11	17.2	4.6
17.75 3	19.3	4.65	18 53	17.71 3	44.5	10.74	10 59	16.92 6	5.5	15.84	16 07	15.50 7	66	1.4	10.4	16.86 5	14	17.8	4.1
17.87 3	21.4	5.18	13 31	19.29 1	44.6	10.77	14 44	15.38 10	5.8	15.90	13 40	18.05 2	66	1.4	17.7	18.16 2	15	18.0	4.9
15.63 8	21.9	5.28	19 44	18.94 3	44.9	10.86	10 53	12.98 12	6.1	15.97	10 12	17.10 3	67	1.6	12.6	17.79 2	16	18.2	4.8
11.97w 10	22.2	5.36	7 30	13.24 13	45.2	10.92	12 47	18.26 2	7.5	16.29	6 50	17.77 2	67	1.6	13.9	18.10 2	15	18.2	21.8
19.07 1	22.4	5.39	16 49	18.59 3	45.3	10.93	17 39	17.99 3	7.6	16.32	6 13	16.82 5	68	2.0	12.9	18.25 2	17	18.7	8.8
18.40 3	22.6	5.45	8 55	17.06 6	45.3	10.95	6 06	15.20 11	8.9	16.66	10 02	15.10 9	69	2.2	6.6	18.05 2	18	18.8	7.1
16.69 7	22.7	5.48	5 52	14.47 12	45.7	11.04	9 34	19.44 2	9.3	16.74	11 53	15.15 9	70	2.4	19.4	18.10 2	18	18.8	9.4
17.07 6	22.8	5.49	12 35	18.90 3	45.7	11.04	11 44	18.10 3	9.6	16.81	12 56	16.15 6	70	2.4	20.4	15.81 7	18	18.8	15.3
17.90 3	22.9	5.53	10 26	19.50 2	46.1	11.12	15 56	18.09 3	10.6	17.04	15 38	16.36 7	71	2.6	12.7	16.61 6	18	18.9	15.4
19.38 2	23.7	5.69	15 41	19.68 2	46.5	11.23	14 06	16.79 6	10.7	17.07	13 12	17.53 2	71	2.6	16.4	17.61 2	18	18.9	21.8
19.36 2	24.0	5.79	14 05	9.04w 7	46.6	11.24	13 19	17.97 3	11.6	17.24	16 42	16.54 5	71	2.7	16.2	17.73 2	19	19.0	9.8
16.22 9	24.0	5.79	8 22	17.75 3	46.7	11.25	17 15	17.06 6	11.8	17.34	9 29	16.42 7	71	2.8	7.6	16.57 6	19	19.0	13.8
19.14 2	24.0	5.80	18 29	16.43 6	46.8	11.29	12 39	17.21 3	12.4	17.44	18 12	16.69 6	72	2.8	19.6	17.85 2	19	19.1	11.6
16.69 7	24.0	5.81	13 59	14.40 11	46.8	11.31	6 34	17.79 3	12.9	17.60	12 29	14.50 10	73	3.1	11.1	17.73 2	20	19.2	15.3
19.18? 1	24.8	5.97	16 04	17.38 6	47.0	11.35	8 36	15.35 11	13.0	17.63	13 01	15.62 7	74	3.3	8.4	16.43 7	21	19.4	11.4
19.24 2	25.2	6.08	17 46	16.68 7	47.4	11.45	7 10	15.48 9	13.2	17.67	5 58	17.34 3	74	3.3	9.9	12.28 9	21	19.5	18.2
15.57 9	25.6	6.17	10 31	18.22 3	47.7	11.52	13 40	18.08 3	13.4	17.69	15 04	15.73 7	74	3.4	8.3	12.43 7	21	19.6	14.2
17.95 3	26.1	6.29	19 01	14.28 12	48.3	11.64	15 27	15.30 11	14.3	17.95	12 51	17.87 2	74	3.4	12.6	17.85 2	23	20.0	19.8
17.22 3	26.3	6.35	19 14	16.26 7	49.1	11.85	10 57	19.24 2	14.6	18.03	10 29	15.12 9	75	3.5	9.4	17.17 2	25	20.5	16.4
17.03 6	26.7	6.43	15 08	18.24 3	50.1	12.07	19 23	19.07 1	15.3	18.19	10 31	16.55 6	75	3.5	12.0	15.76 7	30	21.6	13.8
15.75 9	27.1	6.55	13 01	17.24 6	50.1	12.08	8 00	16.34 8	15.3	18.20	7 12	16.75 5	75	3.5	15.8	17.21 2	30	21.6	16.4
16.24 9	27.8	6.71	17 17	16.63 6	50.1	12.10	9 23	16.40 8	16.5	18.43	18 10	16.89 5	75	3.6	15.7	14.78 8	31	22.0	10.6
16.60 7	28.7	6.93	7 08	18.05 3	50.4	12.17	9 01	18.28 2	16.6	18.45	19 47	18.05 2	75	3.6	18.6	15.30 7	33	22.4	15.2
14.46 11	28.8	6.95	14 47	19.40 1	50.7	12.25	15 36	18.09 2	16.6	18.46	17 23	17.02 3	75	3.7	4.3	16.67 6	34	22.6	15.1
15.34 10	28.9	6.98	11 37	17.44 4	50.7	12.25	14 46	17.43 3	17.0	18.54	18 48	18.01 2	77	4.1	21.0				
17.36 4	29.4	7.07	17 22	18.98 2	50.7	12.26	12 00	12.49 8	17.6	18.69	18 01	18.14† 2	77	4.1	21.1				
16.41 9	29.4	7.09	14 19	13.63 14	50.9	12.27	18 56	15.72 9	17.7	18.72	16 47	17.65 2	81	5.0	4.2				
17.16 6	29.8	7.20	12 24	15.55 9	51.7	12.46	17 35					18.09 2	82	5.2	4.2				
19.03 2	29.9	7.22	5 05	16.26 8	51.9	12.52	6 23					17.52 2	82	5.4	21.7				
17.24 4	30.0	7.24	10 35	16.43 6	52.3	12.61	16 30					17.09 2	88	6.6	4.7				
12.82 13	30.7	7.43	9 22	18.38 3	52.5	12.64	15 03					15.29 9	87	6.6	20.2				
18.53 3	30.8	7.44	5 35	18.53 1	52.5	12.68	6 17					16.86 5	88	6.7	3.0				
18.74 3	31.8	7.68	11 20	19.18 1	53.3	12.86	17 30					15.99 7	91	7.5	20.2				
18.28 3	33.3	8.04	10 05	19.18 1	53.3	12.87	11 02					16.88 5	93	7.9	4.0				
17.95 3	33.6	8.10	19 54	17.09 6	53.8	13.00	19 48					17.23 2	94	8.1	21.0				
17.77 3	33.7	8.16	11 33	14.94 9	54.2	13.11	5 07					17.48 2	96	8.8	22.4				
16.62 6	34.8	8.39	13 06	19.29 1	54.3	13.12	10 00					17.40 2	98	9.2	3.0				
18.65 3	35.1	8.44	19 33	18.75 1	54.4	13.15	9 11					17.37 2	98	9.2	23.0				
17.87 3	35.3	8.49	19 40	15.16 11	54.9	13.26	9 14					15.25 9	99	9.4	2.9				
19.20 2	35.4	8.55	10 39	17.05 6	55.5	13.38	17 41					17.75 2	99	9.4	3.5				
14.82 5	35.7	8.62	5 18	19.18 2	55.8	13.47	19 23					14.66 10	100	9.6	24.7				
18.00 3	35.9	8.65	19 50	14.41 11	55.8	13.48	13 33					12.34 9	101	9.8	22.2				
17.16 4	36.7	8.87	8 16	18.09 3	56.2	13.56	19 34					17.52 2	102	10.2	22.2				
17.95 3	36.9	8.93	9 45	17.39 3	57.5	13.85	16 38					16.82 5	104	10.5	24.7				
15.21 10	37.5	9.05	12 16	13.64 13	58.2	14.04	9 14					15.99 7	104	10.6	24.0				
18.16 3	37.5	9.05	12 05	19.29 1	58.6	14.14	10 55					16.61 6	104	10.7	2.2				
9.94w 7	37.9	9.14	5 22	17.87 3	58.7	14.18	8 09					17.42 2	106	11.0	1.6				
18.26 3	38.1	9.20	12 58	18.17 3	59.2	14.28	17 03					17.93 2	106	11.1	20.8				
19.22 2	38.1	9.21	12 54	18.13 3	59.4	14.32	19 39					18.05 2	109	11.8	3.3				
18.02 3	38.4	9.27	11 52	16.96 6	60.1	14.51	17 07					17.06 5	110	12.0	4.4				
16.55 8	38.7	9.34	6 01	19.52 2	60.2	14.53	9 43					17.95 2	113	12.7	22.0				
15.88 8	39.0	9.40	17 19	17.63 3	61.7	14.89	5 21					16.54 6	117	13.7	3.7				
18.93 2	39.1	9.42	18 24	17.24 4	63.0	15.18	16 40					16.93 5	117	13.8	4.8				

25 prec. + $72^{s}.5$, + 7′ 27″

Area 91. Center for 1900: 23^{h} 13^{m} + 15° 0′ (20′ × 20′)

1—40				
Mag.		α 12^{m}	x	$y+60'$ / y
		s	′	′ ″
18.15	3	27.0	92.03	4 10
15.34	10	27.0	92.03	1 05
15.50	2	27.4	92.12	13 25
16.36	9	28.0	92.28	58 42
17.49	3	28.2	92.33	7 19
17.96	3	28.3	92.35	4 25
18.41	1	28.3	92.36	55 30
15.98	2	28.6	92.42	57 15
16.61	6	28.9	92.50	8 50
18.33	1	29.1	92.54	13 53
18.33	1	29.3	92.58	13 19
16.28	9	29.7	92.67	7 34
17.35	1	29.7	92.67	56 43
16.52	6	29.8	92.70	57 48
14.76	1	30.4	92.84	11 54
17.85	3	31.6	93.16	2 35
16.50	8	31.6	93.16	1 25
17.41	3	32.0	93.25	57 26
16.60	6	32.3	93.31	7 51
16.93	3	33.1	93.50	58 37
16.10	9	33.3	93.55	58 20
18.28	3	33.3	93.56	6 47
17.04	3	34.1	93.75	4 02
18.16	3	34.5	93.85	3 38
18.06	3	34.7	93.89	57 53
17.44	1	35.5	94.07	12 42
18.41	1	35.6	94.10	12 23
17.04	3	35.8	94.16	59 47
17.98	3	36.0	94.20	2 20
17.68	1	36.5	94.32	14 07
14.97	12	37.0	94.46	55 03
16.15	9	37.3	94.52	3 32
15.51	10	38.1	94.70	58 49
18.05	3	38.7	94.86	7 44
16.24	8	38.8	94.88	59 38
14.11	13	38.9	94.90	3 08
18.12	3	39.5	95.06	4 40
18.04	3	39.6	95.07	9 38
18.12	3	39.7	95.10	9 33
18.38	3	40.2	95.22	59 30

41—80				
Mag.		α 12^{m}	x	$y+60'$ / y
		s	′	′ ″
18.58	1	41.2	95.44	4 45
17.71	3	42.1	95.68	59 30
17.62	3	42.4	95.74	2 03
17.06	5	43.2	95.94	5 47
16.94	6	43.3	95.97	3 43
16.87	1	43.4	95.99	13 19
18.58	1	43.4	96.01	4 34
17.03d	1	44.0	96.13	57 41
17.85	3	44.3	96.19	0 42
17.44	1	45.3	96.44	13 38
18.42	2	46.5	96.74	4 29
18.16	3	46.8	96.81	0 39
18.29x	3	47.4	96.95	0 34
17.80	3	49.0	97.36	11 19
15.92	8	49.4	97.44	8 45
17.97	3	49.5	97.46	57 42
18.17	3	49.8	97.54	55 40
17.34	3	50.0	97.58	10 44
17.57	3	50.1	97.61	12 27
18.12	3	51.2	97.87	59 30
17.81	3	52.4	98.18	55 35
18.13	3	52.7	98.25	57 45
18.58	2	52.8	98.27	1 50
14.16	13	52.9	98.28	9 31
18.01	3	54.0	98.55	7 57
18.18	2	54.9	98.78	4 55
15.02	11	55.2	98.85	7 24
18.66	1	55.5	98.93	57 12
13.88	14	55.7	98.96	56 40
16.43	7	56.0	99.02	13 18
18.58	2	57.6	99.43	6 39
17.98	3	57.9	99.49	6 27
9.96w	12	57.9	99.49	55 03
17.60	1	58.3	99.61	14 54
15.10	10	58.4	99.62	2 37
18.41	3	58.4	99.63	57 02
16.26	9	60.4	0.11	13 38
18.18	2	60.7	0.18	3 32
17.00	8	61.2	0.29	4 43
18.42	2	61.7	0.41	2 44

81—120				
Mag.		α 13^{m}	x	$y+60'$ / y
		s	′	′ ″
17.47	3	2.5	0.60	7 27
16.74	8	3.2	0.77	7 21
18.41	1	4.0	0.98	6 34
18.29	3	4.5	1.08	4 56
16.00	9	4.6	1.11	2 20
12.91	14	5.0	1.19	8 10
18.48	3	5.4	1.31	58 02
18.85	2	6.6	1.60	4 34
17.98	3	6.7	1.62	56 26
18.74	1	6.9	1.67	6 44
18.21	3	7.1	1.72	13 10
16.35	9	7.4	1.79	14 43
18.24	3	7.7	1.84	55 39
14.53	12	8.0	1.93	5 18
16.59	8	8.1	1.96	9 04
17.72	3	8.4	2.03	7 26
17.99	3	8.5	2.05	55 56
15.72	9	9.0	2.18	13 28
8.86w	8	9.1	2.19	3 26
17.16	3	9.3	2.26	0 08
16.58	8	9.5	2.29	0 10
18.17	3	9.9	2.39	56 15
18.21	3	10.4	2.50	10 12
16.94	9	11.1	2.67	3 07
18.14	3	11.1	2.68	57 42
18.38	2	11.8	2.86	4 53
16.01	8	12.0	2.91	3 40
17.18	3	12.2	2.96	5 06
18.12	3	12.6	3.06	8 36
17.86	3	12.8	3.11	7 03
17.52	3	12.9	3.12	57 48
18.39	2	13.0	3.14	5 09
16.74	9	13.0	3.16	7 14
15.22	10	13.9	3.34	1 41
18.60	2	14.2	3.43	3 11
16.75	8	14.3	3.46	6 13
18.40	2	15.9	3.86	5 16
17.84	3	16.2	3.92	57 24
18.50	2	16.7	4.02	59 05
14.64	12	17.2	4.15	11 16

121—160				
Mag.		α 13^{m}	x	$y+60'$ / y
		s	′	′ ″
18.56	3	17.3	4.18	6 14
16.94	3	17.6	4.25	9 19
18.12	3	18.6	4.50	4 18
17.24	3	20.2	4.87	58 56
18.14	3	20.6	4.98	4 58
18.54	2	22.1	5.34	0 29
18.03	2	22.1	5.35	0 15
16.47	8	22.8	5.51	6 47
18.28	3	24.0	5.79	55 38
18.12	3	24.2	5.86	2 16
18.17	1	25.0	6.04	4 24
17.62x	3	25.1	6.07	14 12
14.08	10	25.7	6.19	13 42
18.66	1	25.7	6.20	4 12
18.06	3	25.8	6.22	12 44
17.91	3	25.8	6.23	55 41
16.70	6	26.1	6.31	7 25
15.19	11	26.2	6.33	57 25
18.33	1	27.0	6.52	14 59
12.93w	14	27.2	6.58	58 40
16.53	9	28.6	6.91	55 58
14.99	11	29.6	7.16	5 56
15.57	10	30.6	7.39	9 26
14.05	1	31.4	7.58	14 20
18.28	3	32.0	7.72	10 37
18.28	3	32.1	7.74	56 16
18.41	1	32.5	7.85	11 39
17.50	3	32.5	7.86	3 30
15.72	9	32.9	7.95	5 31
17.35	1	33.3	8.05	14 13
18.02	3	33.4	8.07	56 59
14.52	12	33.7	8.15	7 27
17.26	3	33.8	8.18	58 37
17.35	1	34.0	8.23	14 58
17.66	3	34.4	8.30	13 01
18.19	3	34.5	8.32	55 11
17.84	3	34.7	8.38	9 56
16.16	2	35.0	8.44	14 38
16.58	9	35.0	8.44	9 18
18.31	3	36.4	8.80	9 09

161—189				
Mag.		α 13^{m}	x	$y+60'$ / y
		s	′	′ ″
17.93	1	36.4	8.81	13 35
14.71	10	36.8	8.90	10 46
17.19	1	37.0	8.95	13 18
16.52	9	37.5	9.04	6 16
16.90	3	38.0	9.18	3 07
15.96	8	39.2	9.47	0 05
16.87	1	40.4	9.76	14 05
17.96	3	40.6	9.79	55 10
17.52	1	40.6	9.80	14 39
15.30	10	41.3	9.97	59 04
18.17	1	42.6	10.31	55 21
16.40	9	43.4	10.48	4 52
15.68	9	43.5	10.49	59 10
16.42	8	44.4	10.73	9 04
18.33	1	45.1	10.91	14 33
17.91	3	45.8	11.06	1 03
17.94	3	45.9	11.09	1 49
18.21	3	46.4	11.21	59 19
17.98	3	46.5	11.23	58 51
14.77	12	48.4	11.70	9 27
16.85	4	48.5	11.72	1 46
18.41	1	48.6	11.75	55 31
17.19	1	49.0	11.83	56 38
12.68h	1	49.1	11.84	10 29
16.24	9	49.2	11.87	4 39
18.13	3	49.5	11.94	0 22
17.44	3	49.5	11.96	0 50
16.12	9	49.5	11.96	1 38
16.67	3	49.6	11.97	7 27

25 prec. + $75^{s}.0$, + 8′ 11″

Area 91. Supplementary Stars

1s—10s				
Mag.		α 12^{m}	x	$y+60'$ / y
		s	′	′
16.28	7	23	91.1	0.4
17.85	2	26	91.8	1.8
18.35	2	26	91.8	5.8
14.47	10	26	91.9	59.6
17.07	2	43	96.0	54.4
18.03	2	46	96.6	54.5
15.12	9	50	97.6	53.8
18.03	2	50	97.6	54.4
18.00	2	52	98.1	53.5
16.31	7	54	98.6	53.4

11s—20s				
Mag.		α 13^{m}	x	$y+60'$ / y
		s	′	′
17.27	2	13	3.1	53.9
17.65	2	18	4.2	53.4
16.19	7	21	5.0	53.4
18.07	2	21	5.0	54.0
17.97	2	24	5.8	53.4
17.38	2	29	7.1	55.0
18.00	2	31	7.4	53.5
18.00	2	31	7.6	53.8
16.28	7	50	12.1	4.3
14.45	8	53	12.8	4.1

21s				
Mag.		α 13^{m}	x	y
		s	′	′
16.61	5	53	12.9	3.2

0h

Area 92. Center for 1900: $0^{h}\ 50^{m} + 0^{\circ}\ 10'$ (20′ × 20′)

+ 0°

1—40				41—80				81—120				121—158				1s—6s			
Mag.	α 49^{m}	x	$y+10'$	Mag.	α 49^{m}	x	$y+10'$	Mag.	α 49^{m}	x	$y+10'$	Mag.	α 50^{m}	x	$y+10'$	Mag.	α 49^{m}	x	$y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
17.59 1	12.2	88.04	5 23	17.92x 3	34.8	93.69	5 29	18.72 2	58.7	99.67	11 33	17.80d 1	17.6	4.39	5 22	16.66 5	8	87.1	14.4
17.66 3	12.9	88.22	11 52	16.17 9	34.9	93.72	22 45	14.96 12	59.0	99.76	8 01	15.92 11	18.4	4.60	18 16	18.01 2	11	87.7	16.6
17.17 6	13.3	88.32	9 53	19.21? 1	35.2	93.81	12 56	17.85 3	59.4	99.86	24 30	18.67 1	18.6	4.66	17 59	17.52 2	48	96.9	26.2
18.54 1	13.6	88.40	23 55	17.80d 1	35.4	93.85	19 05	18.67 1	60.1	0.02	15 20	17.29 1	19.0	4.76	24 59	13.68 14	56	99.1	25.3
18.54 1	14.4	88.61	21 41	15.26 11	35.6	93.91	10 53	16.39 9	60.8	0.20	18 28	17.42 4	19.1	4.78	11 38	17.56 2	66	1.4	25.2
15.18 1	14.6	88.65	22 22	17.90d 1	37 2	94.29	23 26	17.69d 1	61.2	0.29	8 08	18.67? 1	20.2	5.05	5 38	18.39 2	95	8.7	18.1
18.04 3	15.4	88.86	11 26	17.83 4	39.1	94.77	17 57	11.99 17	62.2	0.56	10 40	17.69d 1	20.4	5.10	6 27				
18.54 1	16.0	88.99	24 01	15.64 11	39.6	94.91	14 21	16.90 6	62.2	0.56	11 24	17.33 6	20.6	5.16	18 01				
17.37 4	16.3	89.08	15 32	15.11 12	39.7	94.92	6 51	18.05 3	63.6	0.90	12 13	17.69d 1	20.8	5.20	17 25				
18.54? 1	16.3	89.08	17 06	17.92 4	40.2	95.05	15 44	18.13d 1	63.9	0.97	5 52	18.27 1	21.0	5.24	12 01				
15.78 2	16.4	89.09	22 20	15.16 12	41.5	95.37	19 08	16.16 10	64.2	1.05	8 51	19.12 2	21.0	5.26	9 53				
17.69d 1	18.2	89.55	17 22	15.07 12	43.6	95.90	7 48	17.90d 1	64.2	1.05	5 27	19.00 2	21.3	5.32	16 15				
17.39d 1	18.8	89.69	16 51	17.02 5	43.7	95.93	14 09	17.59d 1	64.4	1.09	6 21	18.67 1	21.7	5.43	7 01				
18.40d 1	18.8	89.69	8 50	13.59 16	43.9	95.98	18 30	19.21 1	65.0	1.26	10 31	12.52 17	21.8	5.45	12 02				
17.80 1	19.2	89.79	23 02	19.07 1	44.0	96.00	9 08	18.13d 1	65.1	1.28	15 38	18.85 3	22.8	5.70	8 27				
17.56 3	20.0	90.01	21 43	19.47? 1	44.7	96.17	13 17	18.80? 1	65.2	1.29	6 08	18.34 2	23.4	5.84	22 27				
17.69 1	20.2	90.05	5 33	19.47 1	45.4	96.35	15 49	17.57 4	65.2	1.29	24 27	16.36 10	23.8	5.95	12 34				
17.06 6	20.2	90.06	12 18	17.80d 1	46.3	96.58	9 08	11.74 14	65.6	1.39	23 36	18.39 3	23.8	5.96	7 21				
17.29 1	21.4	90.35	24 23	17.90d 1	47.1	96.78	5 17	16.27 10	66.0	1.51	13 26	16.04 10	24.2	6.06	20 35				
16.18 10	23.1	90.77	7 43	18.80x 1	47.5	96.86	19 51	17.41 6	66.3	1.57	11 25	18.54? 1	24.8	6.19	6 37				
18.80 1	24.1	91.03	6 29	15.02 10	47.5	96.87	17 36	16.24 10	67.1	1.78	21 44	15.92 2	25.4	6.34	5 50				
18.03w 2	25	91.2	12 24	19.18 2	48.8	97.20	22 04	18.54 1	68.9	2.22	20 19	18.20 2	25.9	6.47	12 36				
15.93 10	24.8	91.21	12 04	18.22 3	49.0	97.26	19 58	18.40d 1	70.0	2.49	6 09	18.67? 1	25.9	6.48	5 53				
18.27d 1	25.0	91.24	22 11	18.00d 1	49.2	97.31	22 13	17.86 3	70.4	2.61	6 38	18.80? 1	26.0	6.51	16 14				
18.54? 1	25.9	91.47	15 34	19.07 1	49.6	97.39	9 13	18.97 3	71.3	2.82	17 31	16.12 10	26.1	6.53	8 50				
14.82 13	26.0	91.49	8 31	17.63 3	50.6	97.66	5 09	18.13d 1	71.5	2.87	17 45	18.12 3	27.0	6.75	10 54				
18.52 3	26.4	91.60	19 28	13.16 17	50.7	97.67	11 28	17.87 3	72.0	3.00	7 35	18.67? 1	27.2	6.79	22 26				
18.54? 1	27.0	91.74	22 12	18.26 3	51.3	97.83	23 08	18.40d 1	72.7	3.17	11 49	18.00d 1	28.1	7.03	5 48				
17.90d 1	27.1	91.77	8 04	19.34x 1	51.7	97.92	18 09	18.94x 1	73.8	3.45	18 10	17.54 3	28.6	7.16	11 47				
17.21 6	27.6	91.89	10 57	19.35x 3	51.8	97.96	18 35	15.35 11	74.1	3.53	7 58	17.80d 1	29.3	7.33	8 08				
17.18d 1	27.6	91.90	19 05	18.60 2	52.6	98.15	24 04	16.32 10	74.7	3.67	11 06	15.57 11	29.8	7.45	15 37				
18.00 3	28.7	92.18	16 33	17.46 6	53.5	98.38	11 19	18.56 3	74.8	3.69	5 26	17.80d 1	30.3	7.57	16 39				
13.80 16	29.3	92.33	6 23	**9.24w 9**	**53.8**	**98.44**	**14 55**	18.80x 1	74.8	3.69	6 07	17.59d 1	30.7	7.68	16 39				
19.07 1	29.3	92.33	12 48	13.76 16	55.0	98.76	17 08	18.80x 1	75.1	3.77	6 00	18.67? 1	30.7	7.68	6 17				
19.07 1	30.0	92.50	12 07	13.33 17	55.3	98.83	16 47	17.78 3	75.6	3.89	9 00	18.27d 1	31.1	7.77	6 42				
18.54? 1	30.7	92.67	14 10	15.75 11	55.4	98.86	11 39	15.64 11	76.0	4.00	21 39	18.54? 1	31.2	7.79	5 59				
18.31 3	32.3	93.06	23 24	14.35 14	55.5	98.88	10 39	15.63 11	76.1	4.02	18 35	12.94h 1	31.4	7.84	22 11				
18.00d 1	32.8	93.19	13 14	19.34 1	56.0	99.01	11 19	15.48 11	76.3	4.07	17 09	18.54? 1	31.5	7.87	5 30				
18.72 2	34.6	93.65	22 06	15.74 11	56.4	99.10	20 05	17.95 3	76.5	4.13	9 00								
18.09 3	34.7	93.68	21 42	19.07 1	58.5	99.62	9 17	18.80? 1	77.4	4.36	9 09								

25 prec. + $76^{s}.8$, + 8′ 9″

1h

Area 93. Center for 1900: $1^{h}\ 50^{m} + 0^{\circ}\ 20'$ (20′ × 20′)

+ 0°

1—10				11—20				21—30				31—40				41—50			
Mag.	α 49^{m}	x	$y+20'$	Mag.	α 49^{m}	x	$y+20'$	Mag.	α 49^{m}	x	$y+20'$	Mag.	α 49^{m}	x	$y+20'$	Mag.	α 49^{m}	x	$y+20'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
12.48 16	6.2	86.56	16 51	14.98 13	13.4	88.34	13 26	14.61 13	25.8	91.46	8 54	17.45d 1	31.6	92.90	6 56	15.87 9	39.1	94.77	23 25
16.27 1	6.6	86.64	10 15	18.15x 1	13.4	88.36	8 43	18.32 1	26.3	91.57	5 08	16.10 9	32.2	93.06	19 14	15.46 10	40.5	95.13	14 00
18.06 3	7.8	86.94	23 38	17.94d 1	13.8	88.46	21 53	12.68 14	28.5	92.13	24 20	17.34 5	33.2	93.30	14 10	17.65 3	40.6	95.14	21 43
14.29 12	7.9	86.97	17 52	17.94 1	13.9	88.48	6 42	18.48 2	29.4	92.36	16 28	14.06w 13	34.6	93.66	24 54	17.91 3	41.1	95.28	10 59
14.95 13	9.5	87.37	23 20	13.99 1	14.7	88.68	8 06	16.99 8	29.8	92.44	23 02	18.03 2	34.7	93.68	18 36	18.36 2	41.4	95.34	10 00
17.56 3	9.8	87.45	10 50	17.33d 1	14.8	88.71	21 37	12.02 17	29.8	92.46	13 32	14.12 15	35.5	93.87	14 29	14.82 13	42.1	95.52	16 15
18.35 3	11.1	87.77	20 26	17.08 6	15.2	88.80	19 03	17.50 3	30.0	92.51	18 34	18.74 2	37.3	94.32	19 19	10.10w 13	42.3	95.58	17 36
17.59 3	11.2	87.81	24 25	18.43 3	22.8	90.70	15 12	15.18 11	30.3	92.58	15 16	16.71 8	37.4	94.35	10 23	17.94d 1	43.8	95.94	11 15
17.45d 1	12.6	88.16	21 37	17.06 6	24.0	91.00	14 36	12.58h 1	30.6	92.65	5 42	14.30 14	37.8	94.46	17 36	18.22 3	44.1	96.02	22 38
17.73x 1	12.6	88.16	9 35	17.78 1	25.2	91.30	6 00	12.48h 1	31.5	92.88	5 55	18.65 1	38.6	94.66	19 10	14.93 12	44.1	96.03	11 37

25 prec. + $76^{s}.8$, + 7′ 25″

1^{h} **Area 93** $+ 0°$

51—70				71—90				91—96				1s—11s			
Mag.	α 49^{m}	x	$y+20'$	Mag.	α 49^{m}	x	$y+20'$	Mag.	α 50^{m}	x	$y+20'$	Mag.	α 49^{m}	x	$y+20'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
17.08 7	45.0	96.25	16 50	12.82 17	57.2	99.29	16 14	14.06 15	18.2	4.55	13 56	12.48 15	11	87.8	25.9
17.27d 1	45.5	96.37	14 43	17.56 3	58.6	99.64	17 54	13.78 1	18.4	4.60	5 28	18.24 2	22	90.4	25.4
16.02n 2	46.2	96.56	19 12	18.31 3	59.2	99.80	12 43	18.37d 1	18.4	4.60	24 08	15.86 7	23	90.8	25.0
18.45 3	47.0	96.75	11 14	18.43 3	61.4	0.35	12 38	18.05d 1	18.8	4.71	15 49	15.88 6	30	92.4	26.4
18.65? 1	47.6	96.91	15 14	16.98 8	63.2	0.79	14 09	15.76 9	19.7	4.93	19 15	17.48 2	34	93.4	27.0
15.36 12	49.0	97.25	8 05	18.19 3	63.5	0.84	21 47	16.46 9	21.2	5.29	19 07	17.75 2	36	94.0	27.2
14.41 14	49.5	97.38	12 25	15.57 10	64.1	1.02	12 32					15.82 7	41	95.4	28.1
16.61 8	49.9	97.47	24 20	16.72 9	64.1	1.03	19 47					18.28 2	48	96.9	25.8
13.56 16	49.9	97.47	21 07	17.42 3	64.8	1.21	21 39					12.72 14	53	98.2	27.2
17.99 3	51.2	97.79	8 58	15.40 11	65.0	1.26	22 08					18.15 2	61	0.3	26.7
18.32d 1	51.3	97.83	23 38	18.45 3	66.0	1.50	15 33					16.83 5	86	6.4	19.3
18.32d 1	51.3	97.83	23 22	16.08 9	66.6	1.64	8 24								
18.43d 1	51.3	97.83	23 17	13.33 16	66.6	1.65	20 11								
17.39d 1	51.4	97.84	22 17	17.99d 1	67.4	1.85	18 13								
17.78 3	51.9	97.97	6 17	17.72 3	68.6	2.16	16 28								
12.49 17	53.2	98.30	23 26	9.58h 1	70.8	2.70	7 05								
16.99 8	54.1	98.53	20 05	17.54 3	71.5	2.88	20 55								
17.20 5	54.2	98.56	18 43	15.15 12	73.5	3.38	23 55								
10.29w 13	55.0	98.76	10 43	18.37 1	74.0	3.51	8 14								
17.86 3	57.1	99.27	18 59	16.42 8	75.3	3.82	12 59								

25 prec. $+ 76^{\mathrm{s}}.8$, $+ 7' 25''$

2^{h} **Area 94. Center for 1900: $2^{\mathrm{h}}\,51^{\mathrm{m}} + 0° 10'$ ($20' \times 20'$)** $- 0°, + 0°$

1—30				31—60				61—90				91				1s—19s			
Mag.	α 50^{m}	x	$y+10'$	Mag.	α 50^{m}	x	$y+10'$	Mag.	α 51^{m}	x	$y+10'$	Mag.	α 51^{m}	x	$y+10'$	Mag.	α 50^{m}	x	$y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
17.87 3	9.4	87.36	+ 9 40	17.76 3	37.2	94.29	− 0 05	15.77 10	0.0	99.99	+ 2 04	14.68 13	27.7	6.92	+ 5 32	15.45 9	4	85.9	+ 7.6
12.94 18	12.0	88.01	+ 3 52	16.72 9	38.0	94.51	+11 15	17.65x 1	1.2	0.30	+10 23					8.37 8	6	86.6	+ 1.9
12.76 16	13.5	88.38	+ 3 43	18.32 3	38.8	94.69	+11 08	16.67 9	1.4	0.35	+12 02					16.19 7	7	86.7	+ 7.8
17.87w 2	14	88.4	+ 4 06	18.11 3	39.0	94.76	+13 55	18.33 2	3.0	0.76	+ 6 32					16.41 7	7	86.8	+ 5.0
15.15 11	15.6	88.89	− 1 28	18.25 2	39.2	94.80	+ 0 52	17.88 3	3.1	0.77	+ 2 06					18.20 2	10	87.3	+ 0.4
14.75 1	16.4	89.09	− 2 33	17.40 5	39.3	94.83	+ 5 49	16.14 9	3.3	0.82	+ 6 50					16.55 7	39	94.8	+17.8
16.34 9	16.4	89.10	+12 40	17.33 5	40.5	95.13	+12 28	18.10 3	3.9	0.98	+11 38					17.71 2	40	95.1	+15.2
18.33w 2	18	89.3	+ 7 36	15.71 10	41.2	95.31	+ 4 39	9.28w 9	5.8	1.45	+ 7 00					18.24 2	41	95.2	+16.6
17.48 1	17.6	89.39	− 4 25	14.12 15	41.8	95.45	+ 9 48	12.65 17	6.4	1.59	+10 53					16.72 5	44	95.9	+17.4
18.44 3	19.9	89.97	+14 40	18.18 3	43.0	95.76	+13 06	16.81 6	7.7	1.92	+ 8 29					16.30 7	50	97.4	+15.3
16.51 9	20.1	90.02	+ 4 01	18.96 1	43.2	95.80	+ 4 32	13.92 14	7.8	1.94	− 3 55					18.15 2	51	97.8	+15.8
17.96 3	20.4	90.09	+12 31	17.12 5	44.6	96.14	+ 1 55	16.45 10	8.8	2.19	+12 10					17.19 2	62	0.6	+15.8
17.81 3	21.0	90.26	+12 41	17.41 3	44.8	96.20	+ 5 21	17.79 3	10.4	2.59	+11 36					17.09 2	63	0.8	+17.2
16.62 9	21.9	90.48	+ 3 19	17.65 3	44.9	96.23	+ 9 34	12.71 16	12.7	3.17	+ 3 56					18.33 2	66	1.5	+15.5
16.24 10	22.7	90.67	+11 36	18.43 3	45.0	96.25	− 1 29	18.16 3	12.9	3.22	+ 3 22					15.53 9	89	7.2	+ 8.0
17.25 5	23.5	90.87	+ 3 11	18.08d 1	46.5	96.63	+ 1 58	18.61 1	13.1	3.27	+14 15					17.84 2	89	7.4	+ 1.6
17.76 3	25.2	91.29	+ 6 33	16.54 9	48.2	97.06	+ 0 25	18.85 2	14.2	3.56	+10 45					18.33 2	90	7.4	+ 2.3
12.67 17	27.0	91.76	+ 5 27	10.58w 12	48.4	**97.09**	**+ 6 37**	16.61 9	14.6	3.65	+ 1 26					18.29 2	92	8.0	+ 9.0
15.91 9	29.3	92.33	− 3 44	18.59 3	51.1	97.78	+ 2 41	18.32 3	16.0	4.01	+ 2 17					14.50 10	93	8.3	+ 8.4
14.03 15	30.1	92.53	− 0 22	14.29 13	51.5	97.88	+13 26	17.87 3	16.2	4.04	− 2 16								
18.51 2	30.6	92.66	+ 5 20	16.81 7	51.6	97.91	− 3 36	17.24 3	16.8	4.19	+11 42								
16.37 9	30.9	92.73	− 1 19	17.21 7	51.8	97.96	+ 5 53	11.07h 1	17.2	4.29	− 4 13								
15.67 11	31.0	92.75	+ 2 38	18.06 3	53.4	98.35	+12 43	16.12 9	19.1	4.77	+14 11								
15.55 8	31.3	92.83	− 3 41	18.43 3	53.4	98.35	− 1 13	16.16 9	20.4	5.10	− 0 07								
15.67 11	33.2	93.29	+13 30	18.96 1	54.3	98.57	+ 3 46	16.36 9	21.0	5.24	+ 6 56								
18.61 3	33.2	93.31	+11 29	16.95 8	55.1	98.77	+11 19	13.14 16	21.2	5.29	+14 36								
17.76 3	33.8	93.44	+ 1 48	17.27 3	56.0	99.00	− 0 41	12.88 15	21.2	5.31	+14 31								
13.33 18	34.0	93.49	+11 54	15.62 11	56.3	99.07	+11 41	14.77 13	22.3	5.58	+ 3 44								
18.17 3	35.9	93.98	+ 8 10	11.60 15	58.2	99.55	+10 29	17.76 3	24.1	6.03	+13 21								
18.34 3	36.4	94.10	+11 00	16.37 9	59.7	99.92	− 3 02	17.81 3	27.2	6.81	+ 5 32								

25 prec. $+ 76^{\mathrm{s}}.8$, $+ 6' 8''$

3$^{\mathrm{h}}$ Area 95. Center for 1900: 3$^{\mathrm{h}}$ 50$^{\mathrm{m}}$ 0° 0′ (15′ × 15′) − 0°, + 0°

1—30					31—48					1*s*—30*s*					31*s*—50*s*				
Mag.		α 48$^{\mathrm{m}}$	*x*	*y*	Mag.		α 49$^{\mathrm{m}}$	*x*	*y*	Mag.		α 48$^{\mathrm{m}}$	*x*	*y*	Mag.		α 49$^{\mathrm{m}}$	*x*	*y*
		s	′	′ ″			s	′	′ ″			s	′	′			s	′	′
18.24d	1	37.2	79.30	− 0 19	17.81	3	15.7	88.93	− 1 15	15.63	7	28	76.9	− 5.4	15.55	8	36	94.1	− 8.6
18.22	3	39.4	79.84	+ 1 48	14.62	13	16.9	89.22	+ 4 50	17.31	2	28	77.0	+ 1.5	17.95	2	36	94.1	− 2.6
15.88	9	41.6	80.41	− 7 25	16.79	8	17.4	89.34	− 3 00	16.72	7	29	77.2	− 5.0	18.29	2	36	94.1	+ 0.5
15.31	11	42.0	80.51	− 8 32	17.67	3	18.4	89.60	+ 1 57	16.57	7	29	77.4	+ 4.0	16.59	7	37	94.2	− 7.8
17.62	3	42.4	80.59	− 7 31	15.74	9	23.5	90.87	− 3 00	16.91	4	31	77.8	+ 3.9	18 01	2	38	94.4	− 6.2
17.86	3	42.6	80.66	− 3 27	18.37	3	24.2	91.06	− 0 14	13.82	12	32	78.0	+ 1.4	18.31	2	38	94.4	+ 2.0
18.21	3	43.4	80.84	+ 1 48	17.01	7	26.6	91.65	+ 1 26	17.75	2	33	78.2	− 4.8	15.19	9	38	94.5	+ 8.2
14.98	12	43.4	80.86	+ 0 16	18.34	3	28.0	92.01	+ 0 28	15.83	7	33	78.4	− 6.4	18.03	2	39	94.8	+ 7.4
18.02	1	43.6	80.89	+ 4 33	18.03	3	28.8	92.19	− 1 03	17.01	2	34	78.6	+ 1.6	17.63	2	40	95.1	− 2.7
16.98	7	46.5	81.63	+ 3 23	18.22	3	29.4	92.34	+ 2 14	16.64	7	35	78.8	+ 6.2	18.05	2	41	95.2	− 3.8
16.55	8	47.0	81.74	− 4 24	17.14	5	30.0	92.50	+ 1 41	18.13	2	36	78.9	− 1.0	17.47	2	41	95.4	− 4.4
18.03	3	51.0	82.76	+ 4 13	15.07	11	31.3	92.83	− 7 37	18.05	2	42	80.6	+ 5.2	12.81	15	43	95.7	− 7.6
17.13	5	51.4	82.86	− 0 48	15.40	11	31.8	92.94	− 5 32	17.93	2	46	81.4	+ 8.4	16.84	4	44	95.9	− 6.6
18.25	3	51.4	82.86	− 7 39	17.62	3	32.0	93.01	− 5 10	17.40	2	49	82.2	−10.4	17.17	2	44	95.9	+ 1.4
18.35	3	52.4	83.09	− 6 24	17.00	5	32.7	93.17	− 8 32	15.09	10	56	84.0	+ 9.2	18.03	2	44	96.0	− 4.1
16.26	8	54.7	83.67	− 2 27	16.59	8	32.8	93.18	− 3 06	18.31	2	58	84.6	+ 7.4	17.93	2	44	96.0	+ 6.0
15.72	9	56.3	84.07	+ 4 24	17.53	3	33.2	93.29	+ 2 45	16.55	7	64	85.9	+ 7.0	16.53	7	45	96.2	− 0.8
16.85	7	57.2	84.29	− 1 01	18.16	3	35.8	93.94	− 1 57	17.99	2	64	85.9	+ 9.4	17.78	2	46	96.5	+ 5.6
17.98d	1	57.6	84.41	+ 4 29						16.14	7	64	86.0	+10.6	17.47	2	46	96.6	+ 4.8
15.29	12	58.4	84.60	+ 3 25						16.81	4	67	86.7	−10.1	17.25	2	52	98.1	− 1.1
17.86	3	58.4	84.60	− 6 52						16.67	7	67	86.8	−11.4					
15.48	10	63.9	85.98	+ 2 41						17.97	2	76	89.0	−10.1					
15.64	8	67.0	86.74	− 2 25						15.55	8	80	90.0	−10.9					
16.82	8	67.1	86.77	− 6 52						18.17	2	81	90.2	+ 5.2					
18.32	1	67.4	86.85	− 9 17						18.00	2	81	90.3	+ 7.0					
9.34w	10	67.9	86.98	− 0 24						16.72	7	82	90.4	+ 9.6					
14.92	10	68.6	87.15	+ 1 04						16.57	7	84	90.9	−10.2					
16.95	7	69.2	87.29	− 4 01						15.62	7	88	92.1	+ 9.8					
15.94	8	71.5	87.87	− 1 52						17.89	2	91	92.8	+ 7.0					
14.34	13	73.6	88.41	− 5 13						17.97	2	93	93.3	+ 8.1					

25 prec. + $76^{\mathrm{s}}.8$, + 4′ 31″

4$^{\mathrm{h}}$ Area 96. Center for 1900: 4$^{\mathrm{h}}$ 48$^{\mathrm{m}}$ 0° 0′ (15′ × 15′) − 0°, + 0°

1—20					21—40					41—60					61—80					81—100				
Mag.		α 47$^{\mathrm{m}}$	*x*	*y*	Mag.		α 47$^{\mathrm{m}}$	*x*	*y*	Mag.		α 47$^{\mathrm{m}}$	*x*	*y*	Mag.		α 47$^{\mathrm{m}}$	*x*	*y*	Mag.		α 47$^{\mathrm{m}}$	*x*	*y*
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
17.57	3	12.3	88.07	− 3 49	17.88	3	18.1	89.53	− 1 44	16.63	6	25.9	91.47	− 6 56	17.76x	3	31.0	92.74	+ 1 24	18.93	1	35.6	93.90	− 5 21
15.51	8	12.3	88.08	− 3 17	19.05	1	18.8	89.70	+ 3 44	19.65	1	25.9	91.48	− 5 23	19.77	1	31.0	92.76	− 3 02	19.53	1	35.8	93.96	+ 2 33
18.93	1	12.3	88.08	+ 3 35	14.03	11	19.1	89.78	− 8 34	18.57	1	25.9	91.48	+ 1 35	15.12	10	31.1	92.78	− 5 52	18.81	1	35.9	93.97	− 7 35
18.22	2	12.7	88.17	− 3 23	14.78	11	19.1	89.78	− 6 18	18.02	3	27.5	91.88	− 0 56	18.81	1	31.4	92.86	− 2 09	18.46	1	36.4	94.09	+ 3 25
17.71	3	13.8	88.46	+ 0 06	17.06	5	19.2	89.79	− 1 05	15.10	10	27.7	91.93	− 0 11	15.76	9	31.6	92.89	+ 1 38	16.64	6	36.7	94.17	+ 4 23
18.36	3	14.2	88.54	− 6 28	17.16	4	20.6	90.14	− 9 09	18.23d	1	27.8	91.95	− 9 21	19.53	1	31.6	92.89	+ 2 08	18.81	1	36.7	94.18	− 2 06
16.58	9	14.3	88.58	+ 1 43	19.41	1	20.9	90.22	+ 0 13	19.41	1	28.0	91.99	+ 3 47	15.61	9	31.8	92.96	− 9 38	16.68	9	36.9	94.22	− 7 33
17.63	3	14.8	88.69	+ 0 02	16.29	9	22.0	90.49	− 1 00	18.81	1	28.0	92.00	− 9 58	16.61	7	32.0	92.99	+ 3 07	19.77	1	37.0	94.25	+ 0 23
16.15	9	15.1	88.77	+ 1 36	17.01	6	22.0	90.51	− 2 14	14.83	11	28.5	92.12	− 2 57	16.89	7	32.7	93.18	+ 0 28	17.42	4	37.4	94.35	− 9 39
17.28	3	15.3	88.83	− 0 21	19.53	1	22.3	90.57	− 5 43	15.77	9	28.7	92.18	− 9 33	18.33	3	33.0	93.25	− 7 32	18.16	3	37.6	94.39	+ 4 13
16.25	9	15.6	88.91	− 4 25	17.48	2	22.4	90.59	− 3 50	16.71	6	29.0	92.26	− 6 45	17.09	6	33.5	93.38	− 5 49	19.53	1	37.6	94.39	+ 4 20
18.01	3	15.8	88.94	+ 4 46	17.25	3	22.5	90.62	− 3 47	18.59	3	29.0	92.26	− 3 57	16.67	7	33.6	93.40	− 5 37	17.43	4	38.2	94.56	− 9 11
17.94	3	16.4	89.09	+ 2 37	10.15w	8	22.5	90.63	− 7 56	15.60	10	29.6	92.41	+ 4 11	18.15	3	34.1	93.53	− 0 34	18.37	3	38.4	94.59	− 1 59
17.56	3	16.4	89.09	+ 4 53	15.73	9	22.9	90.72	− 6 01	18.69	1	29.9	92.47	− 0 08	18.62	2	34.3	93.58	− 5 33	18.28	2	38.7	94.67	− 7 38
18.08	3	16.8	89.19	+ 1 40	19.55	2	23.0	90.74	− 9 12	19.77	1	30.3	92.57	− 0 56	17.64	3	34.4	93.59	+ 4 40	17.61	3	39.0	94.74	− 8 52
18.47	2	17.1	89.28	− 7 37	19.41	1	23.0	90.76	+ 2 51	16.69	9	30.4	92.59	+ 4 40	18.34	3	34.4	93.60	+ 2 35	17.37	4	39.2	94.79	− 8 34
18.50	3	17.2	89.30	− 6 48	19.17	1	23.7	90.92	− 1 32	19.53	1	30.4	92.60	+ 1 33	18.57	1	34.6	93.65	− 9 47	18.81	1	39.5	94.87	− 5 40
19.29	1	17.2	89.30	+ 0 58	17.12	3	24.1	91.02	− 9 55	19.77	1	30.4	92.60	− 2 05	17.83	3	35.0	93.75	− 2 13	13.78	12	39.8	94.95	− 8 00
18.42	3	17.4	89.36	− 5 30	18.13	3	24.3	91.07	− 5 35	18.46d	1	30.8	92.69	− 8 32	18.81	1	35.1	93.77	− 3 14	18.39	3	40.0	94.99	− 8 22
19.29	1	17.9	89.48	+ 4 32	18.27	3	25.5	91.38	+ 1 00	16.67	6	30.9	92.73	+ 3 17	17.05	6	35.6	93.89	+ 0 38	18.81	1	40.4	95.11	− 4 18

25 prec. + $76^{\mathrm{s}}.8$, + 2′ 35″

101—130				
Mag.		α 47^{m}	x	y
		s	′	′ ″
17.08	4	40.7	95.17	− 0 44
11.87w	12	41.4	95.35	− 2 31
19.41	1	41.4	95.36	− 9 11
19.41	1	41.5	95.38	− 6 00
16.20	9	41.7	95.43	+ 4 46
17.75	3	41.9	95.48	− 6 26
17.40	3	42.1	95.53	− 8 55
18.69	1	42.3	95.58	+ 1 11
9.46w	7	43.1	95.77	− 2 58
18.23d	1	44.0	95.99	+ 4 52
19.41	1	44.3	96.07	− 3 45
16.74	7	44.5	96.12	− 6 53
19.05	1	45.1	96.27	− 1 38
19.65	1	45.1	96.27	+ 1 56
17.20	6	45.4	96.34	− 5 11
18.57	1	45.6	96.41	+ 1 04
17.50	4	45.7	96.42	− 3 58
18.25	3	46.7	96.68	− 1 26
16.90	5	46.8	96.70	+ 3 51
15.16	10	47.0	96.74	+ 2 27
19.65	1	47.1	96.78	− 6 54
18.17	3	47.6	96.89	− 9 00
17.51	3	47.9	96.97	+ 2 20
19.53	1	48.0	96.99	− 8 33
16.53	9	48.4	97.09	− 0 12
18.69	1	49.3	97.32	− 0 36
18.69	1	49.4	97.36	− 6 24
18.59	3	49.5	97.38	− 4 11
18.50	2	49.8	97.44	− 8 32
14.11	13	51.0	97.75	− 0 55

131—160				
Mag.		α 47^{m}	x	y
		s	′	′ ″
17.94	3	51.1	97.78	− 8 03
19.77x	1	51.5	97.88	− 6 06
17.25	3	51.8	97.94	+ 4 23
18.28	2	51.9	97.98	− 5 29
15.53	9	52.0	98.00	+ 1 48
14.24	12	52.5	98.12	+ 3 58
16.99	4	53.0	98.26	− 7 50
18.39	3	53.1	98.28	− 0 23
18.46	1	53.8	98.44	+ 4 06
14.91	10	53.9	98.48	− 7 35
16.91	5	54.1	98.53	− 8 33
15.80	10	54.2	98.54	+ 4 41
15.56	10	54.7	98.67	− 6 46
18.21	3	54.9	98.72	+ 4 24
19.65	1	54.9	98.73	+ 1 40
18.81	1	55.0	98.74	+ 1 44
18.69	1	55.2	98.79	+ 2 15
18.35	2	55.2	98.79	− 8 29
15.13	10	55.3	98.83	+ 3 47
15.57	10	55.5	98.87	− 9 05
18.17	3	55.6	98.89	− 7 49
16.96	5	56.6	99.14	− 7 49
19.41	1	57.1	99.28	+ 3 17
14.04	13	57.4	99.36	− 0 55
17.23	4	57.6	99.41	− 6 02
18.40	3	57.7	99.42	− 5 24
15.97	9	58.3	99.57	− 8 59
18.40	3	58.3	99.57	+ 2 07
17.02	4	58.4	99.61	+ 2 56
16.81	4	59.1	99.78	− 2 54

161—190				
Mag.		α 47^{m}	x	y
		s	′	′ ″
19.65	1	59.2	99.79	+ 0 42
16.87	3	60.1	0.03	− 8 15
17.90	3	60.5	0.12	+ 0 28
19.53	1	60.7	0.18	− 8 53
14.90	11	61.0	0.26	+ 0 25
17.99	3	61.8	0.44	+ 3 05
17.47	3	61.8	0.44	+ 4 26
18.81	1	62.9	0.72	− 6 27
13.73	14	63.4	0.86	+ 0 22
15.76	10	63.5	0.87	+ 2 47
17.98	3	63.5	0.87	− 7 20
16.75	6	64.2	1.06	− 7 05
16.68	6	64.5	1.12	− 8 49
19.53	1	64.7	1.17	− 1 13
19.41	1	64.8	1.20	− 5 35
16.56	8	64.9	1.23	− 8 13
19.17	1	65.2	1.31	+ 2 35
18.23	3	65.4	1.34	+ 2 29
19.29	1	65.8	1.45	− 3 44
15.97	9	66.7	1.67	− 7 38
18.69	1	66.7	1.68	− 2 11
15.49	9	66.8	1.70	+ 1 52
17.15	3	66.9	1.73	+ 0 56
15.49	10	67.1	1.78	− 9 14
16.28	9	67.3	1.82	+ 4 27
17.26	3	67.7	1.93	+ 2 28
19.41	1	67.8	1.94	− 8 38
19.65	1	67.9	1.98	− 3 52
19.53	1	67.9	1.98	− 4 43
16.70	6	68.0	2.00	+ 1 16

191—204				
Mag.		α 48^{m}	x	y
		s	′	′ ″
15.84	9	8.1	2.03	− 3 41
16.33	6	8.2	2.04	− 4 05
15.36	10	8.8	2.19	− 9 26
18.12	3	9.3	2.32	− 6 06
16.17	9	9.3	2.33	+ 0 06
17.65	3	9.3	2.33	− 2 30
19.53	1	9.4	2.34	− 4 42
18.23	1	9.6	2.39	− 2 48
19.53	1	10.1	2.52	− 6 23
15.31	10	10.1	2.53	− 6 33
19.53	1	10.4	2.60	− 5 55
17.48	3	10.7	2.67	+ 2 24
15.16	10	11.1	2.77	+ 0 45
18.11	3	11.2	2.80	+ 0 38

25 prec. + $76^{\mathrm{s}}.8$, + 2′ 35″

4^{h}

Area 96. Supplementary Stars

− 0°, + 0°

1s—20s				
Mag.		α 47^{m}	x	y
		s	′	′
18.08	2	0	84.9	− 2.5
14.67	9	0	84.9	+ 0.1
16.20	7	0	85.0	− 3.7
15.14	8	1	85.2	− 1.7
9.60	5	2	85.4	− 7.3
16.41	7	2	85.4	− 2.8
17.93	2	4	86.0	− 2.3
13.79	11	4	86.0	+ 2.8
16.55	7	4	86.1	− 2.4
16.64	4	5	86.2	− 7.6
15.63	8	6	86.4	− 3.9
18.02	2	6	86.4	− 3.2
16.27	7	7	86.8	+ 1.1
18.02	2	10	87.4	− 5.6
17.50	2	11	87.6	− 6.4
17.32	2	11	87.6	− 0.2
13.38	10	11	87.7	+ 3.2
15.66	8	11	87.8	+ 1.8
16.39	7	18	89.6	+ 5.3
16.47	5	19	89.8	−11.0

21s—40s				
Mag.		α 47^{m}	x	y
		s	′	′
18.26	2	21	90.2	+ 6.3
15.44	8	22	90.5	−12.3
18.48	2	23	90.6	−10.0
17.48	2	25	91.2	−10.8
13.33	11	25	91.3	−13.8
14.84	7	25	91.4	+ 6.6
16.84	2	26	91.5	+ 7.4
18.14	2	27	91.7	+ 7.6
16.63	4	27	91.8	+ 5.6
13.62	10	28	92.0	−12.3
16.27	5	30	92.6	−13.2
16.82	4	31	92.8	+ 6.6
15.49	7	33	93.3	−10.6
15.78	7	35	93.8	−10.5
16.12	7	36	93.9	+ 8.2
17.23	2	38	94.4	+ 5.4
16.47	5	37	94.4	+ 8.4
18.64	2	39	94.7	+ 5.1
15.54	8	39	94.8	−14.1
16.86	2	39	94.8	+ 5.3

41s—60s				
Mag.		α 47^{m}	x	y
		s	′	′
14.66	9	40	95.1	−12.0
17.32	2	40	95.1	+ 7.4
17.40	2	42	95.5	−12.4
15.73	7	43	95.6	−12.0
15.76	8	43	95.8	+ 6.6
15.22	8	44	96.0	−10.4
11.83	10	44	96.1	−12.0
17.84	2	46	96.4	−10.0
16.86	2	48	97.0	−13.2
17.38	2	48	97.0	−11.3
18.26	2	48	97.0	+ 7.6
18.39	2	50	97.4	+ 5.4
15.80	8	50	97.5	+ 6.0
18.18	2	50	97.6	−11.8
15.80	8	51	97.7	−12.6
16.69	4	54	98.5	−10.2
15.85	8	55	98.7	−12.2
17.58	2	56	98.9	−12.8
14.48	10	58	99.5	−13.6
16.46	7	60	99.9	−12.6

61s—80s				
Mag.		α 48^{m}	x	y
		s	′	′
12.54	12	1	0.2	+ 5.8
18.47	2	2	0.4	−11.8
14.90	7	2	0.6	+ 6.3
16.75	4	6	1.6	+ 5.8
18.30	2	12	3.0	−11.2
17.98	2	12	3.0	−10.7
16.65	5	12	3.1	− 1.5
16.63	4	13	3.2	−10.3
16.50	6	13	3.2	− 3.7
18.32	2	13	3.3	−10.8
16.76	4	13	3.3	− 1.2
17.23	2	13	3.4	− 8.2
17.30	2	14	3.6	+ 2.3
17.39	2	15	3.8	+ 1.0
17.08	2	16	4.0	− 8.6
16.29	7	16	4.0	− 8.0
14.79	8	16	4.0	+ 1.6
16.38	7	17	4.2	− 5.5
16.65	4	18	4.4	+ 2.8
15.85	8	18	4.5	+ 3.4

81s—98s				
Mag.		α 48^{m}	x	y
		s	′	′
17.24	2	18	4.6	− 1.0
16.79	3	18	4.6	+ 0.4
16.07	8	19	4.6	+ 2.0
16.69	4	19	4.7	− 2.9
13.67	11	19	4.7	− 1.0
16.17	7	19	4.8	− 9.8
18.00	2	20	5.0	− 5.7
16.82	4	20	5.1	+ 3.2
13.83	9	21	5.2	− 8.8
17.88	2	21	5.3	+ 1.8
16.26	7	22	5.4	− 6.6
18.29	2	22	5.4	− 0.8
16.95	2	23	5.8	− 6.5
16.52	4	24	6.0	− 3.6
12.96	11	24	6.1	− 7.9
16.34	5	25	6.2	− 1.7
14.02	12	25	6.3	− 0.8
16.36	4	28	7.0	− 3.5

25 prec. + $76^{\mathrm{s}}.8$, + 2′ 35″

Area 97. Center for 1900: 5^h 52^m 0° 0′ (15′ × 15′) + 0°, − 0°

1—60					61—120					121—180					181—240					241—300				
Mag.		α 51^m	x	y	Mag.		α 51^m	x	y	Mag.		α 52^m	x	y	Mag.		α 52^m	x	y	Mag.		α 52^m	x	y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
17.10	3	48.0	97.00	+ 3 44	18.06	3	59.0	99.76	+ 4 04	18.10	2	8.4	2.10	− 3 49	18.99	1	20.3	5.07	+ 7 19	17.80	3	30.2	7.55	+ 7 54
18.87	1	48.6	97.14	+ 4 22	15.52	10	59.1	99.77	− 3 35	17.68	3	8.4	2.11	+ 8 15	18.87	1	20.5	5.12	− 3 11	15.69	10	30.5	7.63	+ 8 49
17.88	3	48.7	97.17	+ 9 14	18.99	1	59.1	99.78	− 0 28	19.06	1	8.6	2.14	+ 4 40	18.54	2	20.8	5.20	+ 6 36	18.87	1	30.6	7.65	+ 9 44
18.49	1	48.8	97.20	− 4 58	18.80	1	59.2	99.79	+ 9 22	18.38	2	8.8	2.20	+ 5 35	17.74	3	21.2	5.29	+ 1 19	18.50	2	30.8	7.69	+ 0 12
18.73	1	49.0	97.25	+ 1 47	18.93	1	59.4	99.84	+ 6 57	19.06	1	8.9	2.23	− 0 49	16.59	5	21.3	5.32	+ 1 37	16.17	7	30.8	7.71	− 1 31
18.93	1	49.2	97.29	+ 2 32	12.26	12	60.0	0.00	+ 0 23	18.87	1	9.9	2.48	+ 8 57	17.48	3	21.4	5.34	+ 2 26	18.73	1	31.0	7.75	+ 4 15
18.87	1	49.4	97.34	+ 5 03	15.09	10	60.0	0.01	− 3 25	18.99	1	10.1	2.52	+ 6 06	18.31	2	21.4	5.34	− 3 28	18.67	1	31.1	7.78	+ 9 08
18.18	2	49.4	97.35	− 0 56	18.87	1	60.2	0.05	+ 8 10	18.87	1	10.3	2.57	− 2 06	18.93	1	21.6	5.39	− 3 07	18.73	1	31.2	7.79	+ 2 17
17.34	2	50.1	97.53	+ 8 11	17.47	3	60.4	0.10	+ 9 40	17.31	3	10.6	2.64	− 2 23	15.61	10	21.6	5.39	− 1 13	18.05	3	31.2	7.79	+ 4 10
18.36	1	50.2	97.54	+ 7 46	16.38	8	60.4	0.11	− 2 17	16.55	5	10.6	2.64	+ 3 36	18.67	1	21.6	5.40	+ 7 56	17.92	3	31.4	7.84	+ 0 56
18.73	1	50.2	97.56	+ 1 56	18.23	2	60.6	0.15	+ 7 35	17.58	3	10.8	2.71	− 4 03	18.99	1	21.7	5.42	− 2 56	18.93	1	31.4	7.86	− 3 37
18.09	3	50.3	97.57	− 3 16	18.73	1	60.6	0.16	− 3 27	18.18	3	11.4	2.84	+ 8 16	18.67	1	21.7	5.43	+ 7 05	14.69	9	31.6	7.91	+ 5 38
18.93	1	50.5	97.63	+ 1 47	16.29	9	60.6	0.16	− 0 41	18.67	1	11.4	2.86	+ 0 41	16.39	7	22.9	5.72	+ 3 56	18.93	1	31.8	7.94	+ 7 31
18.42	2	50.6	97.65	− 2 03	18.73	1	60.9	0.22	+ 0 59	19.06	1	11.4	2.86	− 0 25	18.37	3	23.0	5.76	− 4 38	18.80	1	31.9	7.97	+ 8 30
17.84	3	50.7	97.67	+ 4 16	16.41	6	60.9	0.23	+ 4 14	17.84	3	12.5	3.12	− 0 45	18.29	3	23.2	5.79	+ 4 07	16.28	8	32.0	8.01	− 4 37
18.32	2	50.8	97.71	− 4 45	18.99	1	61.4	0.35	+ 4 53	16.40	6	12.6	3.14	+ 7 49	17.31	3	23.3	5.83	− 0 51	18.73	1	32.0	8.01	+ 7 19
18.55	1	51.0	97.75	+ 9 34	15.67	9	61.9	0.47	+ 1 05	18.93	1	12.6	3.15	− 4 46	18.02	3	23.4	5.84	− 2 50	16.54	6	32.1	8.03	+ 1 17
18.67	1	51.1	97.77	− 3 36	17.19	3	62.2	0.55	+ 7 36	16.89	5	12.8	3.21	− 1 50	18.99	1	24.1	6.02	− 0 03	18.80	1	32.2	8.04	+ 9 49
18.11	1	51.4	97.84	+ 7 44	12.20	11	62.4	0.59	+ 1 52	18.55	1	13.2	3.29	+ 5 44	17.56	3	24.1	6.03	+ 7 12	18.99	1	32.2	8.05	− 2 14
16.80	5	51.4	97.86	− 0 12	18.73	1	62.7	0.67	− 1 25	17.98	3	13.2	3.30	+ 8 12	17.43	3	24.2	6.04	+ 1 24	18.99	1	32.2	8.05	− 1 19
17.32	3	52.2	98.04	+ 4 01	18.87	1	62.8	0.69	+ 8 05	18.28	2	13.3	3.33	− 0 30	14.56	9	24.2	6.05	+ 8 07	18.67	1	32.6	8.16	+ 8 50
15.63	10	52.2	98.06	+ 4 23	15.41	9	62.9	0.73	+ 0 51	17.36	3	13.4	3.34	− 1 19	19.12	1	24.2	6.06	+ 0 53	18.93	1	32.6	8.16	+ 2 40
16.87	3	52.2	98.06	+ 7 42	18.73	1	63.3	0.82	+ 1 48	19.18?	1	13.4	3.35	− 0 09	18.55	1	24.4	6.11	+ 6 35	17.80	3	32.7	8.17	+ 9 40
15.51	10	52.6	98.14	+ 4 09	18.03	3	63.4	0.84	+ 9 59	18.49	1	13.4	3.35	+ 3 58	17.31	3	24.4	6.12	− 2 02	17.88	3	32.8	8.21	+ 9 19
18.80	1	53.0	98.24	+ 7 37	18.99	1	63.4	0.86	+ 4 28	18.99	1	13.5	3.38	− 4 43	19.06	1	24.6	6.15	− 2 28	16.73	5	33.1	8.28	+ 2 22
18.87	1	53.0	98.25	+ 8 34	17.65	3	63.5	0.87	+ 9 47	18.11	3	13.7	3.42	+ 0 24	17.99	3	24.6	6.15	+ 1 42	16.87	5	33.2	8.31	− 1 29
18.93	1	53.0	98.26	− 1 02	17.30	3	63.7	0.93	− 3 19	18.32	3	13.9	3.48	− 4 04	18.93	1	24.6	6.16	+ 7 50	16.23	8	33.6	8.41	− 4 00
18.38	2	53.2	98.30	+ 5 14	18.93	1	63.8	0.94	+ 6 49	18.93	1	14.2	3.55	− 0 38	18.36	1	24.8	6.19	+ 7 54	18.93	1	33.7	8.43	− 4 37
18.47	3	53.5	98.37	− 1 42	18.99	1	64.0	1.01	+ 3 37	17.50	3	14.3	3.58	+ 8 07	15.55	9	25.0	6.25	+ 6 47	16.85	3	33.9	8.47	+ 7 48
18.87	1	53.5	98.37	− 4 29	18.99	1	64.2	1.04	+ 5 15	19.12	1	14.4	3.59	− 1 22	18.09	3	25.0	6.25	− 3 53	18.87	1	34.0	8.50	− 3 24
18.93?	1	53.6	98.41	− 2 48	18.32	3	64.3	1.07	− 0 57	16.22	7	14.6	3.66	+ 5 16	18.87	1	25.1	6.28	+ 8 31	15.99	9	34.4	8.61	− 1 40
16.49	5	53.8	98.46	+ 9 39	18.93	1	64.3	1.08	− 4 08	18.67	1	14.8	3.69	+ 9 46	13.76w	11	25.3	6.32	+ 2 15	16.88	3	34.4	8.61	+ 5 04
16.08	7	54.7	98.67	+ 7 58	18.07	3	64.4	1.10	+ 9 00	18.55	1	14.8	3.70	+ 1 51	18.87	1	25.4	6.34	+ 9 52	17.57	3	34.7	8.67	− 0 24
18.15	3	54.9	98.72	− 1 14	18.99	1	64.6	1.15	− 2 27	18.63	2	15.0	3.76	+ 5 02	19.12	1	25.5	6.37	+ 2 49	18.11	3	34.9	8.72	+ 1 38
18.93	1	55.2	98.79	+ 6 01	16.98	3	64.6	1.16	− 3 03	18.21	3	15.2	3.79	+ 6 49	17.92	3	25.6	6.39	− 1 20	18.73	1	35.1	8.77	− 1 21
18.99	1	55.2	98.80	+ 3 37	18.93	1	64.6	1.16	+ 5 09	16.36	6	15.2	3.79	− 2 57	19.12	1	25.8	6.46	+ 1 46	18.02	3	35.2	8.80	+ 4 18
16.90	5	55.2	98.80	− 2 48	17.43	3	64.9	1.22	+ 1 06	18.99	1	15.2	3.80	− 2 48	16.73	5	25.9	6.48	− 0 26	18.49	1	35.7	8.92	+ 3 41
18.93	1	55.4	98.84	− 0 29	17.94	3	65.0	1.24	+ 7 10	18.80	2	15.4	3.86	− 4 59	17.42	3	26.1	6.53	+ 3 04	18.67	1	35.8	8.94	− 3 47
15.02	10	55.4	98.85	− 3 29	19.06	1	65.0	1.26	− 0 45	19.06	1	16.1	4.02	+ 0 18	19.06	1	26.2	6.55	− 0 52	18.87	1	35.8	8.96	− 3 23
18.48	3	55.4	98.85	− 3 41	18.14	3	65.1	1.28	− 2 17	18.39	2	16.5	4.13	+ 5 55	14.76	11	26.3	6.58	− 2 56	18.80	1	35.9	8.98	+ 4 12
17.55	3	55.4	98.86	− 1 32	16.96	3	65.1	1.28	+ 4 44	16.88	5	17.1	4.27	+ 6 40	17.78	3	26.3	6.58	− 2 12	18.93	1	36.0	8.99	+ 5 46
15.52	10	55.5	98.87	+ 7 08	19.12	1	65.6	1.41	+ 1 23	18.08	2	17.1	4.28	− 0 39	18.90	2	26.5	6.63	+ 2 40	18.99	1	36.0	9.00	+ 0 18
18.99	1	55.6	98.91	− 1 13	18.50	2	65.6	1.41	+ 7 21	18.18	3	17.1	4.28	− 1 24	18.99	1	26.6	6.66	− 3 05	18.93	1	36.0	9.01	− 3 38
18.42	2	56.1	99.02	+ 3 30	19.06	1	65.8	1.45	− 1 38	18.93	1	17.2	4.30	+ 8 03	17.88	2	26.9	6.73	+ 4 20	17.49	3	36.1	9.03	+ 8 15
16.74	3	56.1	99.03	+ 6 07	16.51	6	65.9	1.48	− 0 31	18.51	3	17.4	4.35	− 4 46	17.18	5	27.3	6.82	+ 0 01	16.99	3	36.2	9.05	+ 9 59
18.12	3	56.2	99.04	+ 4 47	18.73	1	66.1	1.53	+ 2 28	18.93	1	17.8	4.46	+ 8 24	16.10	7	27.7	6.93	+ 8 19	17.05	5	36.3	9.07	− 3 38
18.52	3	56.3	99.08	+ 0 03	19.06	1	66.3	1.57	+ 3 15	**6.81w**	**4**	**17.9**	**4.47**	**+ 0 54**	18.36	2	27.8	6.96	+ 7 53	18.34	2	36.3	9.08	− 0 08
18.49	3	57.0	99.26	+ 0 06	17.14	3	66.5	1.63	+ 4 48	14.33	12	18.0	4.51	− 3 59	17.95	3	28.4	7.09	+ 2 50	17.88	3	36.4	9.11	− 3 13
18.73	1	57.2	99.30	− 0 28	19.12	1	66.6	1.65	+ 1 31	17.66	3	18.3	4.57	+ 8 19	17.45	3	28.4	7.11	+ 4 24	17.00	3	36.5	9.12	− 2 42
17.75	3	57.2	99.31	+ 7 51	18.29	3	67.0	1.75	− 2 59	19.12	1	18.4	4.59	− 1 12	17.30	3	28.6	7.16	− 2 53	17.86	3	36.6	9.15	− 4 16
18.99	1	57.6	99.39	+ 1 23	18.22	3	67.1	1.78	+ 4 00	11.64w	8	18.4	4.60	− 3 51	18.51	3	28.7	7.18	− 4 40	18.05	1	36.6	9.15	+ 6 29
16.82	5	58.2	99.54	+ 4 26	17.87	3	67.2	1.79	+ 9 37	12.88w	6	18.4	4.61	+ 0 52	17.26	3	28.8	7.19	+ 9 30	16.27	8	36.7	9.17	+ 1 23
18.49	1	58.2	99.55	+ 5 38	18.08	3	67.6	1.89	+ 0 59	16.17	7	18.5	4.62	− 4 01	18.93	1	28.8	7.21	− 2 23	18.80	1	36.8	9.21	+ 2 43
18.53	2	58.2	99.55	− 4 59	19.12	1	67.7	1.93	+ 0 12	18.65	2	18.6	4.65	+ 8 13	18.87	1	28.9	7.23	+ 0 33	18.99	1	37.0	9.26	+ 2 19
18.93	1	58.5	99.63	+ 5 01	18.73	1	67.7	1.93	− 2 45	14.65	11	18.8	4.69	+ 3 54	18.80	1	29.0	7.26	+ 5 20	18.93	1	37.1	9.27	− 2 03
18.99	1	58.7	99.68	− 0 49	18.20	2	68.0	2.01	− 3 35	18.23	2	18.8	4.71	− 1 31	16.88	5	29.1	7.27	− 2 19	17.69	3	37.2	9.31	− 1 35
18.99	1	58.8	99.69	− 1 03	18.02	2	68.2	2.05	− 1 25	18.49	1	19.3	4.83	+ 4 04	18.93	1	29.1	7.28	− 1 18	18.08	3	37.4	9.34	+ 4 07
17.46	3	58.8	99.70	+ 7 31	16.12	9	68.2	2.05	+ 1 44	15.10	10	19.4	4.84	− 0 45	18.34	3	29.6	7.41	− 2 05	18.43	1	37.4	9.35	− 4 14
17.45	3	58.9	99.73	− 3 23	18.49	1	68.3	2.08	− 2 34	17.80	3	19.4	4.85	+ 9 28	18.38	2	29.8	7.44	− 5 00	18.55	1	37.7	9.43	+ 5 00
18.55	1	59.0	99.76	− 0 44	18.30	1	68.4	2.10	− 2 40	18.99	1	20.2	5.06	− 4 37	18.00	2	30.0	7.51	+ 8 22	18.43	2	37.9	9.47	+ 1 42

25 prec. + $76^{s}.8$, + 0′ 17″

301—310				311—320				321—330				331—340				341—347			
Mag.	α 52^{m}	x	y	Mag.	α 52^{m}	x	y	Mag.	α 52^{m}	x	y	Mag.	α 52^{m}	x	y	Mag.	α 52^{m}	x	y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
18.93 1	38.0	9.50	+ 6 35	17.61 3	40.8	10.20	+ 6 42	16.35 6	42.0	10.49	− 1 40	18.01 3	44.2	11.04	− 0 13	16.27 7	46.1	11.53	+ 8 33
18.93 1	38.0	9.50	− 0 21	18.59 2	40.9	10.23	+ 0 49	16.99 3	42.1	10.52	+ 6 03	16.20 9	44.2	11.05	+ 1 44	10.88w 7	46.3	11.57	− 4 56
16.88 3	39.0	9.75	− 3 00	18.20 2	41.0	10.25	− 2 08	18.20 3	42.2	10.54	− 2 47	17.26 3	44.4	11.09	+ 6 41	13.16 11	46.5	11.63	+ 4 20
18.61 1	39.2	9.79	+ 5 46	18.49 1	41.1	10.28	− 1 10	18.93 1	42.4	10.59	+ 1 13	18.93 1	44.4	11.09	− 1 04	17.05 3	47.0	11.74	+ 9 02
18.87 1	40.0	10.00	− 4 21	18.24 1	41.1	10.28	− 4 18	18.93 1	42.7	10.67	+ 4 52	16.35 6	44.6	11.16	+ 9 51	18.87 1	47.0	11.75	− 2 19
16.95 3	40.2	10.05	− 3 48	18.17 3	41.4	10.34	+ 6 16	17.46 3	43.2	10.79	+ 7 57	18.87 1	44.7	11.18	− 3 26	18.87 1	47.0	11.76	− 1 59
18.87 1	40.2	10.05	− 4 54	17.15 3	41.4	10.34	+ 1 41	16.83 3	43.3	10.82	+ 2 09	18.87 1	45.1	11.28	+ 4 40	18.87 1	47.4	11.85	+ 2 54
17.79 3	40.2	10.06	+ 0 24	18.93 1	41.4	10.35	+ 1 00	13.79 11	43.3	10.83	− 4 21	18.27 3	45.4	11.36	+ 6 10				
18.61 1	40.4	10.11	+ 7 29	17.88 3	41.4	10.36	+ 7 37	15.88 9	44.0	11.00	− 2 04	18.19 3	45.6	11.41	+ 2 07				
17.25 3	40.6	10.15	− 1 52	17.40 3	41.8	10.46	+ 3 31	17.67 3	44.1	11.03	+ 1 23	18.55 1	45.8	11.45	− 2 32				

25 prec. + $76\overset{\mathrm{s}}{.}8$, + 0′ 16″

5$^{\mathrm{h}}$ Area 97. Supplementary Stars + 0°, − 0°

1*s*—40*s*				41*s*—80*s*				81*s*—120*s*				121*s*—160*s*				161*s*—168*s*			
Mag.	α 51^{m}	x	y	Mag.	α 51^{m}	x	y	Mag.	α 52^{m}	x	y	Mag.	α 52^{m}	x	y	Mag.	α 53^{m}	x	y
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
18.14 2	32	93.0	+ 1.4	17.15 2	49	97.3	− 6.6	16.50 4	18	4.6	− 8.2	18.42 2	48	11.9	+ 3.6	16.31 5	2	15.4	+ 2.4
17.28 2	32	93.0	+ 1.6	17.08 2	49	97.3	− 5.4	16.99 2	19	4.8	− 9.2	18.23 2	48	12.1	− 2.4	17.14 2	2	15.4	+ 3.6
17.96 2	32	93.1	+ 1.8	17.05 2	52	97.9	− 8.0	16.37 4	19	4.8	− 5.6	17.56 2	48	12.1	− 2.2	16.97 2	3	15.7	+ 1.4
16.92 2	34	93.4	− 0.1	16.69 4	52	98.0	− 5.1	17.82 2	19	4.8	+12.3	14.88 6	49	12.2	− 3.2	18.02 2	3	15.7	+ 2.0
17.85 2	34	93.6	+ 1.3	17.16 2	54	98.6	− 7.6	17.10 2	20	5.1	− 6.8	18.26 2	49	12.3	− 3.4	17.36 2	4	15.9	− 0.4
17.99 2	35	93.8	+ 0.6	17.05 2	54	98.6	− 7.3	16.02 5	21	5.2	− 6.8	17.72 2	49	12.3	+ 9.4	15.17 8	4	16.0	0.0
18.21 2	36	94.0	+ 1.4	17.60 2	55	98.8	− 6.2	15.24 7	21	5.2	− 5.6	17.61 2	49	12.4	− 6.4	17.57 2	4	16.0	+ 2.0
17.31 2	36	94.0	+ 2.6	17.64 2	56	99.0	− 9.1	15.01 8	22	5.4	− 9.8	16.56 4	49	12.4	− 4.9	16.69 2	6	16.4	+ 3.3
15.13 7	36	94.0	+ 3.6	18.38 2	56	99.1	− 7.0	18.32 2	21	5.4	− 7.2	18.02 2	50	12.4	+ 8.4				
16.25 4	36	94.1	+ 0.1	17.54 2	57	99.2	− 6.6	15.01 9	22	5.6	−10.2	17.72 2	50	12.6	− 3.8				
16.85 2	37	94.2	− 4.2	17.26 2	57	99.3	− 8.6	18.27 2	23	5.8	− 5.8	17.35 2	50	12.6	+ 5.5				
16.40 4	37	94.2	− 0.4	17.89 2	58	99.4	− 6.8	17.08 2	24	6.0	− 9.0	16.77 2	51	12.7	+ 1.8				
16.63 4	37	94.2	+ 4.6	15.45 8	60	0.1	− 5.4	17.68 2	24	6.0	− 6.2	17.22 2	51	12.8	+ 2.3				
17.31 2	38	94.4	− 1.8	18.46 2	61	0.2	− 5.1	16.44 4	25	6.4	− 8.9	17.90 2	52	12.9	− 3.1				
16.73 4	39	94.7	− 2.8	17.41 2	62	0.4	+10.7	17.60 2	27	6.8	− 6.9	16.80 2	52	13.0	− 1.6				
16.53 4	39	94.8	− 0.7	17.39 2	62	0.5	+10.4	17.33 2	27	6.8	+10.8	13.89 11	52	13.0	+ 2.8				
16.49 4	39	94.8	+ 4.3	18.20 2	63	0.7	− 9.6	16.28 5	29	7.2	− 5.8	16.17 7	53	13.2	− 5.2				
15.16 8	40	95.0	− 5.0	18.04 2	64	1.0	− 9.6	17.20 2	29	7.2	− 5.4	17.10 2	53	13.2	− 3.6				
15.60 8	40	95.0	− 2.7	18.25 2	64	1.0	− 9.4	18.32 2	29	7.3	− 8.4	17.03 2	54	13.4	− 6.3				
17.72 2	41	95.4	+ 0.6	15.98 6	64	1.0	− 7.2	17.45 2	29	7.3	− 7.3	16.76 2	54	13.4	− 1.7				
13.50 9	42	95.4	+ 1.3	16.57 4	64	1.1	− 5.4	15.69 6	30	7.4	+10.5	18.24 2	54	13.6	+ 1.2				
17.73 2	41	95.4	+ 4.6	14.34 11	68	1.9	− 8.9	16.06 5	31	7.8	+11.1	16.59 2	55	13.7	+ 6.3				
17.01 2	42	95.5	− 1.4	17.05 2	68	1.9	− 6.2	13.15 11	32	8.0	− 9.7	16.45 3	55	13.7	+ 6.6				
17.97 2	42	95.6	+ 3.4	17.49 2	68	2.0	− 9.5	16.76 4	32	8.1	− 9.4	17.09 2	55	13.8	+ 1.6				
17.77 2	43	95.6	+ 6.8	15.92 6	68	2.0	− 7.3	15.27 8	33	8.2	+10.8	13.80 9	55	13.8	+ 5.2				
18.23 2	43	95.7	+ 0.2	17.32 2	68	2.0	− 5.6	17.97 2	34	8.4	+10.8	17.03 2	55	13.8	+ 5.4				
15.96 7	43	95.7	+ 2.7	16.27 6	69	2.2	− 6.2	15.42 8	35	8.7	− 7.0	16.32 2	56	13.9	+ 5.7				
16.48 4	43	95.8	− 5.8	17.82 2	70	2.6	− 9.7	18.21 2	35	8.8	− 9.6	17.68 2	56	14.0	− 3.6				
14.93 8	44	96.0	− 1.4	16.87 4	70	2.6	− 5.3	16.76 4	36	9.0	− 9.6	17.06 2	57	14.2	− 3.4				
15.92 7	44	96.1	− 6.6	15.21 8	72	3.0	− 8.8	18.29 2	36	9.1	− 7.8	18.32 2	58	14.4	− 1.0				
17.92 2	44	96.1	+ 1.6	17.63 2	72	3.0	− 6.4	14.70 10	38	9.6	− 8.8	17.38 2	58	14.4	− 0.4				
16.30 2	44	96.1	+ 8.0	17.03 2	73	3.2	− 8.8	17.58: 2	39	9.8	− 5.7	16.90 2	58	14.5	+ 6.6				
14.58 8	45	96.4	− 5.0	16.75 2	73	3.2	+10.1	17.07 2	40	10.1	− 8.1	15.53 8	58	14.6	− 2.6				
17.78 2	46	96.4	− 4.1	16.51 4	74	3.5	−10.6	16.47 4	40	10.1	− 6.3	16.38 5	58	14.6	+ 1.4				
16.55 4	46	96.6	− 4.6	17.00 2	74	3.6	− 7.9	15.54 7	41	10.2	− 5.8	14.65 8	58	14.6	+ 4.4				
16.95 2	47	96.8	− 2.2	18.14 2	76	4.0	− 8.7	18.08 2	41	10.3	− 6.5	15.89 4	58	14.6	+ 6.4				
17.87 2	47	96.8	+ 5.8	17.58 2	76	4.1	− 7.8	16.58 4	42	10.5	− 6.2	17.61 2	59	14.8	− 4.4				
15.91 7	48	96.9	− 3.6	18.32 2	78	4.4	− 6.4	16.60 4	43	10.8	− 6.6	17.15 2	59	14.8	0.0				
17.85 2	48	97.0	+ 7.0	18.45 2	78	4.4	− 6.0	16.72 4	45	11.2	− 6.9	17.04 2	61	15.2	+ 4.4				
18.13 2	49	97.2	− 6.9	17.70 2	78	4.4	+11.2	17.24 2	46	11.4	− 5.6	17.94 2	62	15.4	− 2.6				

25 prec. + $76\overset{\mathrm{s}}{.}8$, + 0′ 17″

Area 98. Center for 1900: $6^h\ 47^m$ − 0° 10′ (15′ × 15′)

1—60

Mag.		α 46^m	x	$y - 10'$
		s	′	′ ″
16.58	3	33.5	93.37	6 45
17.79	1	33.5	93.38	18 53
17.79	1	33.6	93.39	17 59
17.79	1	33.7	93.43	17 28
17.18	3	33.8	93.44	15 19
12.69	17	33.8	93.44	13 05
16.57	3	33.8	93.46	14 54
17.30	3	34.0	93.50	19 06
16.57	3	34.1	93.53	6 21
17.79	1	34.2	93.54	18 57
17.19	3	34.2	93.55	15 53
17.43	2	34.2	93.56	14 59
17.48	2	34.2	93.56	10 30
16.96	3	34.4	93.61	16 27
17.30	2	34.5	93.63	14 41
16.17	8	34.6	93.64	7 17
17.10	2	34.6	93.66	14 29
17.68	3	34.7	93.68	5 28
14.59	12	34.8	93.70	7 52
17.53	3	34.9	93.73	14 48
17.70	1	34.9	93.73	19 30
17.06	3	35.0	93.74	16 56
15.55	8	35.0	93.74	10 45
16.97	3	35.0	93.74	13 26
16.02	8	35.0	93.75	11 49
17.42	2	35.0	93.75	7 05
15.53	9	35.0	93.75	17 28
17.28	2	35.0	93.76	18 39
15.48	8	35.1	93.78	10 58
17.36	2	35.1	93.78	7 17
15.79	9	35.2	93.79	16 12
17.31	3	35.2	93.80	5 05
17.45	3	35.2	93.81	14 45
17.34	2	35.4	93.84	10 12
16.14	8	35.4	93.84	8 50
16.87	3	35.4	93.84	9 16
16.63	3	35.4	93.84	17 24
17.14	3	35.4	93.85	12 11
11.63	17	35.4	93.86	9 45
17.58	2	35.6	93.90	6 32
17.65	2	35.6	93.90	19 47
17.58	2	35.6	93.91	14 34
17.23	3	35.8	93.94	10 35
17.45	2	35.9	93.98	10 20
17.50	2	36.0	93.99	7 23
15.70	8	36.0	94.00	10 14
17.40	2	36.0	94.00	19 06
14.63	11	36.0	94.00	5 57
17.21	3	36.2	94.04	12 03
16.58	3	36.2	94.05	18 20
16.04:	2	36.2	94.05	16 00
14.72	11	36.2	94.05	8 46
17.34	2	36.2	94.06	6 49
15.11	9	36.2	94.06	13 02
15.71	8	36.3	94.07	15 13
16.92	3	36.4	94.10	19 26
17.87	1	36.4	94.10	12 34
17.36	2	36.5	94.13	5 29
17.33	3	36.6	94.15	8 24
17.11	3	36.6	94.15	19 37

61—120

Mag.		α 46^m	x	$y - 10'$
		s	′	′ ″
15.74	9	36.8	94.19	17 58
17.38	2	36.8	94.19	13 23
16.11	8	36.8	94.19	13 39
17.94	2	36.8	94.19	6 26
17.15	3	36.8	94.21	9 41
17.44	2	36.9	94.23	11 54
15.92	8	37.0	94.24	17 23
17.17	3	37.0	94.25	17 20
14.19	13	37.1	94.27	18 59
17.20	3	37.1	94.28	10 26
17.87	1	37.2	94.31	12 26
15.65	8	37.4	94.34	13 38
17.26	3	37.4	94.35	11 17
17.54	3	37.5	94.38	15 13
14.24	10	37.5	94.38	15 55
14.81	9	37.6	94.39	14 56
16.64	2	37.6	94.39	14 27
17.56	2	37.6	94.39	8 32
17.70	3	37.6	94.40	17 21
17.30	3	37.6	94.41	5 48
15.48	9	37.6	94.41	16 43
16.15	5	37.7	94.43	13 54
17.42	2	37.8	94.44	12 37
11.54w	14	37.8	94.44	18 30
16.53	4	37.8	94.44	9 35
17.87	1	37.8	94.45	9 23
15.23	9	37.8	94.46	17 29
17.35	3	37.9	94.47	19 02
17.41	3	38.0	94.50	16 49
15.36	9	38.1	94.53	11 27
17.29	3	38.1	94.53	13 47
17.74	1	38.2	94.54	12 08
17.98	2	38.2	94.54	8 49
17.01	3	38.2	94.56	15 09
17.56	3	38.4	94.61	11 39
17.60	2	38.5	94.62	8 15
17.87	1	38.5	94.63	14 58
17.58	2	38.6	94.66	14 43
16.05	8	38.7	94.68	13 53
13.15	16	38.7	94.68	9 00
16.10	7	38.8	94.70	17 28
17.70	1	38.8	94.70	16 56
17.70	1	38.8	94.70	19 43
16.03	7	38.9	94.73	14 36
17.36	2	39.0	94.74	17 02
17.73	3	39.0	94.75	5 36
16.72	3	39.1	94.77	7 40
17.11	3	39.2	94.81	7 09
13.91	13	39.3	94.83	8 53
16.27	8	39.3	94.83	12 22
15.14	10	39.4	94.85	6 43
16.85	3	39.4	94.86	19 30
16.57	3	39.5	94.87	7 35
17.18	3	39.6	94.89	15 22
17.32	2	39.6	94.90	18 45
17.41	2	39.7	94.93	14 42
16.85	3	39.8	94.96	6 31
16.51	3	39.9	94.97	14 35
17.46	2	39.9	94.97	9 45
16.47	3	39.9	94.97	8 21

121—180

Mag.		α 46^m	x	$y - 10'$
		s	′	′ ″
16.86	3	40.0	94.99	14 52
16.73	3	40.0	94.99	18 27
17.42	2	40.0	94.99	7 40
17.16	3	40.0	95.00	8 05
16.15	7	40.1	95.02	12 59
16.93	3	40.1	95.02	19 36
17.40	2	40.2	95.04	8 28
15.59	8	40.2	95.05	15 50
15.92	8	40.3	95.08	10 35
12.57	17	40.4	95.09	12 52
17.34	2	40.4	95.09	9 07
14.87	2	40.4	95.10	19 28
17.40	3	40.5	95.13	13 37
11.14w	13	40.7	95.17	19 22
17.52	2	40.8	95.21	10 48
15.00	9	40.9	95.22	11 09
17.62	2	40.9	95.23	14 11
16.06	8	41.0	95.25	11 16
16.99	3	41.2	95.30	6 51
15.68	9	41.2	95.31	14 59
15.39	9	41.2	95.31	5 28
16.58	3	41.3	95.32	11 18
13.13	16	41.4	95.34	13 55
14.52	11	41.4	95.36	15 09
11.99	15	41.6	95.41	19 24
14.34	10	41.7	95.43	17 13
17.30	2	41.8	95.46	16 15
15.99	8	41.8	95.46	13 26
16.99	3	41.8	95.46	9 39
17.48	2	42.1	95.52	14 45
17.42	2	42.1	95.52	13 33
17.38d	1	42.1	95.52	17 44
17.56	1	42.1	95.53	19 29
17.38	2	42.2	95.54	10 18
17.64	2	42.2	95.54	9 20
17.29	2	42.2	95.56	8 47
17.54	2	42.2	95.56	14 11
16.57	3	42.2	95.56	16 48
17.66	3	42.3	95.57	19 14
15.52	9	42.3	95.58	13 45
16.30	7	42.6	95.64	10 39
17.79	1	42.6	95.65	19 42
16.14	7	42.6	95.65	17 41
16.54	3	42.6	95.65	17 20
16.09	8	42.8	95.69	6 04
15.81	9	42.8	95.71	19 28
14.72	11	42.8	95.71	14 10
17.40	3	42.9	95.73	7 27
17.32	2	43.0	95.74	8 35
17.42	2	43.0	95.75	10 07
17.49	3	43.1	95.77	17 07
17.44	3	43.1	95.77	17 13
17.19	3	43.1	95.77	6 43
17.46	2	43.1	95.78	12 48
16.53	3	43.1	95.78	9 50
17.40	2	43.2	95.79	7 35
16.17	6	43.2	95.79	14 02
17.14	2	43.2	95.79	17 15
17.39	3	43.2	95.80	17 35
14.24	8	43.2	95.81	18 27

181—240

Mag.		α 46^m	x	$y - 10'$
		s	′	′ ″
17.54	2	43.2	95.81	7 38
17.92	1	43.4	95.85	8 04
17.26	3	43.4	95.86	11 57
17.58	2	43.4	95.86	15 52
17.87	1	43.4	95.86	16 07
17.14	3	43.6	95.89	16 49
16.03	8	43.6	95.89	10 35
17.48	2	43.6	95.90	10 28
16.51	4	43.6	95.91	5 40
17.06	3	43.8	95.94	12 40
17.46	2	43.8	95.94	14 44
16.09	6	43.8	95.94	18 02
15.00	9	43.8	95.96	8 25
17.28	2	43.9	95.97	10 36
16.11	8	43.9	95.98	17 32
17.58	2	44.0	96.01	15 41
14.13	12	44.2	96.04	19 33
17.49	2	44.2	96.04	6 39
17.42	2	44.2	96.05	9 03
17.39	3	44.2	96.05	18 12
17.46	2	44.3	96.07	10 22
17.40	2	44.6	96.14	5 11
15.92	8	44.6	96.16	13 22
17.44	2	44.6	96.16	8 14
15.79	8	44.9	96.22	19 19
14.41	12	45.0	96.25	13 08
15.95	8	45.0	96.25	6 00
17.24	3	45.1	96.27	6 03
16.77	3	45.2	96.29	12 24
17.87	1	45.2	96.29	7 18
17.45	2	45.2	96.29	14 29
17.92	1	45.3	96.33	11 28
17.87	1	45.4	96.36	16 22
16.98	3	45.5	96.38	10 43
16.99	3	45.6	96.39	7 12
16.66	3	45.6	96.39	16 11
16.56	3	45.6	96.41	19 34
15.83	8	45.6	96.41	13 37
16.54	3	45.7	96.43	14 11
17.92	1	45.8	96.44	7 31
17.48	2	46.0	96.50	7 58
17.47	3	46.0	96.50	18 14
17.92	1	46.0	96.51	8 51
15.85	9	46.1	96.53	7 47
17.02	3	46.2	96.55	18 58
17.08	3	46.2	96.55	17 50
17.36	3	46.3	96.57	15 03
15.18	9	46.3	96.58	14 54
17.35	3	46.4	96.59	13 47
16.14	5	46.4	96.59	13 18
17.24	2	46.6	96.64	19 44
17.52	2	46.6	96.64	16 17
14.54	12	46.6	96.66	6 46
17.53	3	46.8	96.71	17 16
14.98	8	46.9	96.72	10 30
17.37	3	46.9	96.72	10 14
16.24	7	46.9	96.73	14 16
16.03	7	47.0	96.74	19 41
16.19	7	47.0	96.75	17 27
16.21	7	47.1	96.77	12 03

241—300

Mag.		α 46^m	x	$y - 10'$
		s	′	′ ″
17.38	3	47.2	96.79	16 01
16.27	8	47.2	96.79	8 11
17.64	2	47.2	96.81	14 10
16.22	8	47.3	96.83	11 54
17.42	3	47.4	96.86	11 29
17.13	3	47.6	96.91	16 09
17.69	2	48.0	96.99	7 22
16.65	3	48.1	97.02	10 12
17.18	3	48.1	97.03	14 59
17.64	2	48.1	97.03	11 09
15.43	9	48.1	97.03	7 29
17.02	3	48.1	97.06	12 12
17.57	2	48.2	97.06	7 31
15.97	7	48.3	97.07	19 10
17.46	3	48.3	97.08	12 48
17.46	2	48.4	97.10	6 24
16.92	2	48.4	97.10	19 50
11.52	16	48.5	97.12	18 53
17.54	2	48.6	97.14	7 04
16.74	3	48.6	97.15	12 12
16.72	3	48.6	97.16	8 43
17.34	2	48.6	97.16	18 17
17.83	1	48.8	97.20	17 51
16.70	3	48.8	97.20	5 29
17.40	3	48.9	97.23	19 57
15.04	9	49.0	97.25	13 48
16.53	3	49.0	97.25	11 49
16.42	5	49.2	97.29	15 55
17.67	2	49.2	97.29	13 34
15.55	9	49.2	97.30	7 13
14.52	12	49.2	97.30	5 44
17.46	2	49.3	97.32	12 15
17.49	2	49.4	97.34	8 44
17.05	3	49.6	97.41	18 39
17.92	1	49.7	97.43	10 40
17.96	1	49.7	97.43	12 09
17.22	3	49.7	97.43	10 24
17.34	3	49.8	97.43	5 13
16.08	7	49.8	97.44	15 04
17.39	3	50.0	97.50	19 21
16.48	3	50.1	97.53	8 23
17.54	2	50.2	97.54	11 01
17.10	3	50.2	97.55	10 28
17.45	3	50.2	97.55	19 53
17.47	2	50.2	97.55	16 23
17.36	2	50.4	97.59	10 04
17.92	1	50.5	97.63	10 12
16.35	8	50.6	97.64	11 39
17.40	2	50.6	97.64	15 33
14.65	12	50.6	97.66	15 40
17.61	3	50.7	97.68	5 29
17.87	1	50.8	97.69	15 56
17.72	2	50.8	97.70	13 30
17.05	3	50.8	97.70	9 51
15.65	8	50.9	97.72	15 28
17.24	3	51.0	97.75	10 48
17.42	3	51.0	97.75	9 13
15.88	9	51.0	97.75	7 20
17.28	2	51.1	97.77	10 19
17.13	3	51.2	97.80	11 59

25 prec. + $76^s.8$, − 1′ 41″

301—360				361—420				421—480				481—540				541—600			
Mag.	α 46^{m}	x	$y-10'$	Mag.	α 46^{m}	x	$y-10'$	Mag.	α 46^{m}	x	$y-10'$	Mag.	α 47^{m}	x	$y-10'$	Mag.	α 47^{m}	x	$y-10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
16.10 8	51.3	97.82	12 57	15.68 8	55.8	98.95	7 10	18.01 1	59.4	99.84	13 01	7.92w 7	3.5	0.87	10 33	16.19 8	7.4	1.85	8 46
16.26 3	51.4	97.84	19 58	16.37 8	55.8	98.96	7 25	14.64 10	59.4	99.85	15 51	16.51 3	3.6	0.89	11 32	17.21 3	7.5	1.88	15 38
16.77 3	51.4	97.85	8 47	17.00 3	56.0	99.00	17 03	17.83 1	59.4	99.86	19 16	16.47 3	3.6	0.90	17 49	17.59 2	7.6	1.89	14 47
17.48 3	51.4	97.86	8 20	15.89 9	56.0	99.00	19 57	17.42 2	59.5	99.88	5 07	17.96 1	3.6	0.90	7 30	16.57 4	7.8	1.94	10 35
16.30 8	51.5	97.88	8 04	16.59 3	56.1	99.02	10 37	16.94 3	59.6	99.89	14 22	16.78 5	3.6	0.91	9 24	17.65 3	7.8	1.96	15 53
16.11 8	51.6	97.91	9 42	17.92 1	56.2	99.04	6 09	17.83 1	59.8	99.94	19 53	14.76 11	3.7	0.93	7 48	17.79x 1	8.0	2.00	10 44
17.30 2	51.8	97.95	7 44	17.42 3	56.4	99.11	19 27	15.69 7	59.9	99.98	17 07	16.58 5	3.8	0.94	8 14	15.63 9	8.0	2.00	6 18
17.50 2	51.8	97.95	9 21	17.83 1	56.4	99.11	7 30	16.81 3	60.0	99.99	13 43	17.56 2	3.8	0.94	18 52	17.28 3	8.2	2.05	5 25
17.32 2	51.8	97.95	15 48	16.97 3	56.5	99.14	17 03	17.40 3	60.0	99.99	13 02	17.40 2	3.8	0.95	15 48	17.79 1	8.4	2.09	8 36
17.08 3	51.9	97.97	6 37	15.75 6	56.6	99.14	12 30	16.99 3	60.0	99.99	9 07	17.61 1	3.8	0.95	11 39	16.69 3	8.4	2.09	10 52
12.78 15	52.0	97.99	15 18	17.96 1	56.6	99.16	13 05	17.40 2	60.0	0.00	7 40	15.56 5	3.8	0.95	13 53	17.03 3	8.4	2.10	5 40
17.62 2	52.0	97.99	10 50	16.46 7	56.6	99.16	12 49	17.32 3	60.2	0.06	5 43	17.54 2	3.8	0.96	6 53	17.57 2	8.4	2.11	6 29
17.33 3	52.0	98.00	8 11	16.07 8	56.8	99.20	12 44	17.40 2	60.2	0.06	16 23	16.36 7	3.9	0.98	14 12	16.88 3	8.5	2.12	6 03
15.53 9	52.3	98.07	14 24	13.85 13	56.9	99.23	12 29	17.30 2	60.4	0.10	17 59	16.86 3	4.0	0.99	14 01	17.87 1	8.5	2.12	5 04
16.25 7	52.3	98.08	14 59	17.22 2	57.1	99.28	17 03	16.14 8	60.6	0.16	9 55	17.54 2	4.0	1.01	15 40	17.57 2	8.5	2.12	13 46
17.87 1	52.4	98.09	15 27	17.82 3	57.2	99.30	6 16	17.37 3	60.7	0.18	18 26	17.56 1	4.2	1.06	8 57	18.04 1	8.5	2.13	10 42
15.26 8	52.4	98.10	8 42	17.44 2	57.4	99.34	15 55	16.92 3	60.8	0.21	6 38	17.34 3	4.4	1.10	12 39	15.06 9	8.6	2.16	19 07
16.30 8	52.5	98.12	12 15	17.04 3	57.4	99.36	9 00	17.46 2	60.9	0.23	5 44	15.72 7	4.4	1.10	12 31	14.16 11	8.6	2.16	15 15
16.33 7	52.7	98.17	9 55	16.56 3	57.4	99.36	16 55	17.56 3	60.9	0.23	16 42	17.36 2	4.6	1.15	19 18	16.52 3	8.8	2.21	17 28
17.83 1	52.7	98.17	18 05	17.28 2	57.5	99.37	19 41	16.64 3	61.0	0.25	17 37	13.30 14	4.7	1.18	12 06	16.95 3	8.9	2.22	5 49
11.20w13	52.8	98.20	15 20	17.68 2	57.5	99.38	13 33	16.43: 1	61.0	0.25	6 24	16.83 3	4.8	1.20	5 07	16.48 8	9.0	2.24	11 06
17.82 2	53.0	98.24	12 22	16.30 7	57.6	99.39	14 58	16.87 3	61.2	0.30	8 11	18.01 1	4.8	1.20	9 17	16.48 6	9.0	2.24	9 03
17.39 3	53.0	98.25	6 52	17.54 2	57.6	99.39	18 05	16.95 3	61.2	0.30	17 07	17.34 2	4.9	1.23	18 19	17.52 2	9.0	2.25	9 09
17.52 2	53.0	98.25	12 41	17.77 3	57.6	99.40	13 59	17.21 3	61.3	0.32	17 58	16.87 3	5.0	1.26	13 41	18.01 1	9.0	2.26	9 11
17.32 2	53.1	98.28	14 36	16.13 8	57.6	99.41	16 35	17.63 3	61.3	0.32	13 44	16.54 6	5.0	1.26	7 52	17.92 1	9.1	2.27	7 20
17.56 2	53.1	98.28	5 00	16.26 8	57.7	99.42	7 55	17.56 2	61.3	0.33	11 01	17.65 1	5.2	1.29	7 48	18.01 1	9.1	2.27	12 59
16.95 3	53.2	98.30	5 29	17.87 1	57.7	99.43	6 51	17.84 2	61.4	0.34	11 48	17.53 2	5.2	1.29	8 43	17.40 2	9.2	2.30	18 18
17.48 2	53.3	98.32	11 57	12.43 17	57.8	99.44	12 30	17.83 1	61.4	0.34	18 02	17.44 2	5.2	1.29	9 14	14.95 9	9.4	2.35	13 40
17.47 3	53.4	98.36	18 19	16.53 5	57.8	99.44	8 06	16.06 7	61.4	0.36	19 32	17.01 3	5.2	1.29	14 25	16.45 5	9.5	2.37	6 35
16.59 3	53.5	98.37	17 38	17.14 3	57.8	99.45	6 39	16.45 8	61.6	0.40	12 05	14.36 10	5.2	1.29	11 12	15.69 9	9.7	2.43	16 00
16.39 8	53.5	98.37	9 21	17.64 2	57.8	99.45	9 12	17.87 1	61.6	0.41	18 26	17.87 1	5.2	1.30	18 02	14.16 11	9.8	2.44	12 30
16.30 5	53.9	98.48	17 56	16.62 3	57.8	99.46	13 41	17.54 2	61.7	0.42	19 29	14.36 11	5.5	1.38	7 22	17.48 2	10.0	2.49	7 15
16.91 3	54.0	98.50	9 34	16.00 8	58.0	99.50	16 05	16.62 6	61.8	0.45	9 55	17.32 3	5.6	1.39	11 19	16.90 3	10.0	2.49	11 54
17.42 3	54.0	98.51	18 43	16.98 3	58.0	99.51	17 24	17.96 1	61.8	0.46	14 14	17.74 1	5.6	1.40	9 10	15.94 8	10.0	2.50	11 09
18.01 1	54.1	98.53	10 51	14.95 9	58.1	99.53	14 47	16.82 4	62.0	0.49	12 29	17.44 2	5.7	1.43	5 18	17.51 2	10.0	2.50	10 38
16.66 3	54.1	98.53	5 55	9.23w11	58.1	99.53	11 09	17.46 2	62.0	0.49	5 33	15.25 9	5.8	1.44	15 20	17.64 2	10.0	2.50	9 34
17.96 1	54.2	98.54	13 33	17.52 2	58.2	99.55	15 30	15.95 8	62.0	0.49	19 59	16.15 8	5.8	1.46	13 42	17.35 3	10.1	2.52	8 43
17.26 2	54.2	98.54	8 29	17.92 1	58.2	99.55	7 12	17.83 1	62.0	0.50	17 23	17.92 1	5.8	1.46	10 00	17.92 1	10.2	2.54	15 26
17.69 2	54.2	98.55	7 59	14.50 11	58.2	99.56	5 22	17.55 3	62.0	0.50	18 29	14.06 12	5.8	1.46	15 00	16.38 5	10.2	2.54	17 17
17.42 2	54.5	98.63	7 23	17.41 3	58.2	99.56	19 20	17.56 1	62.0	0.51	6 57	17.34 2	5.9	1.47	19 43	17.44 2	10.2	2.55	18 20
17.17 3	54.6	98.64	15 45	15.18 8	58.4	99.59	5 08	16.52 3	62.2	0.54	19 29	17.50 3	5.9	1.47	9 00	17.50 2	10.5	2.62	18 24
17.96 1	54.6	98.66	8 05	16.65 3	58.4	99.59	16 56	16.71 3	62.2	0.55	19 42	17.61 2	6.2	1.54	12 40	14.70 10	10.6	2.64	19 33
16.82 3	54.8	98.70	13 49	16.43 5	58.4	99.59	12 12	17.96 1	62.2	0.56	7 50	17.58 2	6.2	1.55	16 21	17.29 3	10.6	2.66	5 02
14.84 11	54.8	98.70	19 50	18.01 1	58.4	99.60	12 31	16.97 3	62.2	0.56	14 46	17.14 3	6.4	1.59	9 57	17.87 1	10.7	2.67	6 38
17.37 3	54.8	98.71	6 59	17.92 1	58.5	99.63	5 58	17.54 2	62.4	0.59	14 37	17.70 1	6.4	1.59	11 34	17.64 2	10.7	2.68	5 00
18.01 1	55.0	98.74	10 59	17.96 1	58.6	99.65	7 41	17.32 3	62.4	0.59	14 01	17.21 3	6.4	1.59	11 49	17.59 2	10.8	2.70	7 41
16.40 5	55.0	98.75	7 32	18.01 1	58.6	99.66	9 51	17.42 2	62.4	0.59	6 16	17.84 2	6.4	1.61	12 49	17.96 1	10.8	2.71	7 56
17.01 3	55.0	98.75	11 54	15.90 8	58.6	99.66	14 11	14.67 12	62.5	0.62	11 44	17.41 3	6.5	1.63	8 18	16.47 6	11.0	2.75	10 29
14.89 9	55.0	98.76	8 01	17.78 2	58.6	99.66	14 06	14.05 11	62.5	0.63	5 07	15.24 8	6.6	1.64	12 30	17.54 2	11.0	2.76	7 09
17.42 2	55.1	98.78	15 07	17.59 2	58.6	99.66	14 55	17.61 1	62.6	0.66	9 28	15.64 9	6.6	1.66	6 51	17.40 2	11.1	2.78	16 17
17.71 2	55.2	98.80	10 23	17.76 2	58.7	99.67	8 26	14.51 11	62.8	0.69	11 49	14.78 11	6.9	1.73	9 02	17.36 2	11.2	2.80	16 37
16.65 3	55.4	98.84	17 54	17.81 3	58.7	99.68	13 05	16.97 2	62.8	0.69	10 49	14.11 12	7.0	1.74	12 11	17.71 3	11.3	2.82	7 31
16.77 3	55.4	98.85	18 31	18.01 1	58.8	99.69	9 37	16.13 8	62.8	0.70	14 55	15.02 9	7.0	1.75	13 30	17.48 3	11.4	2.84	17 35
15.91 8	55.4	98.86	17 04	17.53 3	58.8	99.69	11 35	17.54 2	62.8	0.71	6 54	16.17 8	7.0	1.75	9 11	17.63 3	11.4	2.85	12 09
17.92 1	55.5	98.87	16 05	14.54 11	58.8	99.70	16 46	16.05 8	62.9	0.72	18 41	18.01 1	7.2	1.79	9 26	17.92 1	11.5	2.87	9 48
16.16 8	55.6	98.89	14 08	17.57 2	58.8	99.70	14 55	17.46 2	63.0	0.74	15 49	17.27 3	7.2	1.81	15 37	17.10 3	11.5	2.87	14 29
16.82 3	55.6	98.91	11 57	16.51 3	59.0	99.76	18 55	16.91 3	63.4	0.84	6 00	17.64 3	7.3	1.82	15 48	17.05 3	11.8	2.94	15 49
17.32 2	55.7	98.92	16 23	15.99 8	59.0	99.76	17 45	12.81 16	63.4	0.84	16 23	17.52 2	7.4	1.85	17 41	12.28 16	11.8	2.95	13 08
14.10 12	55.8	98.94	8 26	17.92 1	59.2	99.80	16 06	16.78 3	63.4	0.85	15 09	17.40 3	7.4	1.85	18 11	17.32 3	11.8	2.96	16 11
17.54 2	55.8	98.95	9 25	17.70 1	59.3	99.82	9 19	17.34 3	63.4	0.85	13 34	18.01 1	7.4	1.85	8 55	15.92 8	11.8	2.96	17 58

25 prec. + $76^{s}.8$, − 1′ 42″

601—660

Mag.		α 47^{m}	x	$y-10'$
		s	′	′ ″
16.17	8	11.9	2.97	5 33
16.98	3	11.9	2.97	8 24
16.49	3	12.1	3.02	9 41
17.81	3	12.1	3.02	6 55
16.39	7	12.1	3.03	7 04
15.06	9	12.2	3.04	14 02
17.87	1	12.2	3.05	6 05
17.56	2	12.2	3.06	15 43
12.92	16	12.3	3.07	16 22
17.61	1	12.3	3.07	11 33
17.49	2	12.3	3.08	5 33
17.46	2	12.5	3.12	19 45
14.80	11	12.6	3.15	9 58
17.58	2	13.0	3.24	9 11
16.09	8	13.0	3.24	18 42
17.47	3	13.0	3.24	17 35
16.20	8	13.0	3.24	15 18
16.11	8	13.0	3.25	15 02
16.84	3	13.0	3.25	7 40
17.23	3	13.0	3.26	16 34
15.52	9	13.2	3.31	7 02
17.34	2	13.3	3.33	13 42
14.95	9	13.4	3.35	12 25
17.25	3	13.5	3.37	8 19
16.44	3	13.5	3.37	18 57
17.79	1	13.5	3.38	13 36
16.21	5	13.6	3.40	18 22
17.40	3	13.6	3.40	16 24
16.98	3	13.8	3.45	8 19
14.48	12	13.9	3.48	19 17
16.15	8	14.0	3.50	6 16
15.80	8	14.2	3.55	8 39
17.00	3	14.4	3.60	8 54
17.79	1	14.6	3.64	11 50
17.32	3	14.7	3.67	7 01
13.73	12	14.7	3.68	7 50
17.36	3	14.8	3.70	8 09
12.01	15	14.8	3.70	19 30
17.65	1	15.0	3.74	10 44
14.27:	1	15.1	3.78	14 25
17.35	3	15.2	3.80	11 28
15.53	9	15.4	3.84	15 39
16.77	3	15.4	3.84	17 01
17.28	3	15.4	3.85	15 50
16.12	8	15.4	3.85	5 12
15.25	9	15.6	3.89	12 06
15.91	8	15.6	3.91	19 34
17.11	3	15.7	3.93	10 12
17.74	1	15.8	3.95	12 26
16.71	3	15.8	3.95	5 17
17.14	3	16.0	4.00	16 25
14.67	9	16.0	4.00	11 17
17.96	1	16.1	4.03	10 34
16.23	5	16.4	4.09	10 07
17.23	3	16.6	4.14	5 50
17.61	1	16.6	4.16	17 51
17.24	3	16.6	4.16	10 15
17.42	3	16.6	4.16	11 52
16.79	3	16.7	4.17	14 34
15.88	7	16.7	4.18	14 56

661—720

Mag.		α 47^{m}	x	$y-10'$
		s	′	′ ″
13.84	11	17.0	4.25	5 36
17.83	1	17.1	4.27	18 42
17.14	3	17.2	4.30	17 45
17.36	2	17.2	4.31	18 35
17.48	2	17.3	4.33	12 21
16.94	3	17.4	4.34	19 15
16.67	4	17.4	4.34	8 20
17.98	2	17.4	4.36	5 00
14.24	13	17.5	4.37	9 32
17.42	3	17.6	4.39	8 44
17.42	2	17.6	4.39	14 38
17.52	3	17.6	4.39	19 36
17.60	3	17.8	4.46	6 19
17.50	2	18.0	4.50	14 54
17.62	3	18.1	4.53	12 26
16.84	3	18.2	4.54	19 53
17.79	1	18.4	4.59	13 40
16.93	3	18.4	4.61	10 12
16.47	3	18.7	4.67	5 13
17.50	2	18.7	4.67	11 20
17.60	2	18.8	4.69	14 16
16.92	3	18.8	4.71	9 41
15.36	9	19.0	4.76	17 26
14.40	11	19.0	4.76	18 31
17.50	2	19.1	4.77	17 13
17.22	2	19.2	4.80	16 11
15.79	8	19.2	4.81	10 44
17.42	2	19.2	4.81	13 52
16.57	3	19.4	4.85	14 06
17.48	2	19.4	4.85	10 37
14.59	12	19.4	4.86	8 02
16.30	5	19.4	4.86	6 17
16.47	3	19.6	4.89	19 04
17.30	2	19.6	4.90	12 18
17.11	3	19.7	4.92	11 01
17.38	2	19.9	4.97	15 47
14.50	11	20.1	5.02	17 36
16.86	3	20.1	5.02	18 07
17.92	1	20.2	5.04	14 55
17.36	2	20.2	5.06	15 55
17.56	2	20.3	5.07	16 00
17.06	3	20.3	5.08	17 30
17.36	2	20.4	5.09	17 28
17.28	3	20.5	5.13	19 20
16.08	7	20.5	5.13	17 06
17.42	2	20.6	5.14	10 24
16.07	8	20.8	5.19	14 09
16.97	3	20.8	5.20	13 30
17.43	2	20.8	5.20	16 09
12.25	16	21.0	5.25	6 30
17.32	3	21.0	5.26	10 55
17.87	1	21.2	5.29	14 53
17.45	3	21.2	5.31	15 49
16.55	3	21.3	5.33	15 24
17.54	2	21.4	5.34	5 14
17.49	2	21.4	5.35	7 00
17.28	3	21.4	5.36	15 29
17.58	2	21.5	5.37	16 07
17.32	3	21.5	5.38	14 24
17.44	2	21.6	5.41	5 30

721—780

Mag.		α 47^{m}	x	$y-10'$
		s	′	′ ″
17.98	2	21.6	5.41	6 37
17.87	1	21.7	5.43	14 56
16.70	3	21.8	5.45	9 02
13.95	11	21.8	5.46	11 07
17.87	1	21.9	5.47	5 14
17.34	2	21.9	5.48	16 35
13.87	13	22.0	5.51	19 18
17.69	2	22.1	5.52	12 26
17.46	2	22.2	5.55	12 23
17.30	3	22.4	5.59	15 29
17.35	2	22.4	5.60	8 50
16.51	3	22.4	5.60	15 12
17.88	2	22.5	5.62	18 21
17.58	2	22.5	5.63	14 42
17.92	1	22.5	5.63	7 45
17.32	2	22.5	5.63	16 48
17.44	2	22.6	5.65	8 11
17.36	2	22.6	5.65	16 13
17.42	2	22.6	5.66	15 13
17.44	2	22.8	5.69	10 36
16.02	8	22.8	5.69	11 29
17.28	2	22.8	5.70	19 01
17.19	3	22.8	5.71	19 54
17.25	3	23.0	5.74	14 58
17.44	2	23.0	5.74	9 42
17.55	3	23.0	5.74	5 26
14.60	10	23.0	5.75	6 07
17.46	2	23.2	5.80	13 49
11.47	17	23.2	5.80	13 04
17.28	3	23.2	5.81	13 23
17.25	3	23.3	5.82	13 32
17.44	2	23.4	5.84	11 28
17.30	2	23.6	5.90	18 38
17.52	3	23.8	5.94	6 03
17.87	1	23.8	5.94	11 15
17.62	2	23.8	5.96	11 10
17.56	1	23.9	5.97	11 44
17.36	2	24.2	6.04	5 10
17.92	1	24.2	6.04	10 25
16.22	6	24.2	6.04	12 27
17.44	2	24.2	6.05	14 58
17.40	2	24.4	6.10	12 14
17.87	1	24.4	6.10	16 42
17.20	3	24.4	6.11	7 44
15.72	8	24.6	6.14	10 42
15.83	6	24.6	6.15	11 38
17.20	2	24.6	6.15	17 01
17.29	3	24.6	6.16	17 23
17.62	2	24.6	6.16	19 56
17.42	2	24.8	6.19	18 01
17.20	2	24.8	6.20	19 29
17.92	1	24.8	6.20	13 24
17.49	2	24.8	6.20	7 49
17.39	3	24.9	6.23	17 06
17.37	3	24.9	6.23	18 19
17.26	3	25.1	6.28	18 21
15.86	9	25.1	6.28	9 02
16.14	8	25.2	6.31	9 31
17.65	1	25.3	6.33	5 29
17.24	3	25.5	6.37	13 40

781—840

Mag.		α 47^{m}	x	$y-10'$
		s	′	′ ″
17.51	1	25.6	6.40	15 35
14.89	10	25.6	6.40	9 24
16.18	5	25.8	6.44	11 46
17.64	2	25.8	6.45	8 59
17.87	1	26.0	6.49	13 01
17.74	1	26.0	6.51	15 44
15.81	9	26.2	6.56	19 07
17.20	2	26.4	6.59	13 06
17.35	3	26.4	6.61	6 07
17.51	3	26.5	6.62	17 41
16.23	7	26.5	6.62	13 35
17.38	2	26.6	6.64	14 35
17.70	1	26.6	6.65	5 14
16.35	4	26.6	6.66	7 18
14.72	11	26.7	6.67	18 31
17.83	1	26.7	6.67	13 20
17.13	3	26.7	6.68	5 52
17.42	2	26.8	6.69	12 59
16.53	3	26.9	6.73	10 12
17.56	3	27.0	6.74	15 27
17.11	3	27.0	6.75	15 59
16.02	6	27.0	6.76	19 36
17.04	3	27.2	6.79	10 57
17.16	3	27.3	6.83	16 37
17.29	3	27.4	6.85	19 21
16.65	3	27.4	6.86	18 47
17.44	3	27.5	6.87	17 46
16.79	3	27.5	6.88	14 31
17.49	2	27.5	6.88	11 00
17.56	3	27.6	6.91	14 26
17.30	2	27.8	6.94	18 41
16.47	3	27.8	6.95	13 52
17.83	1	27.8	6.96	18 05
14.50	12	27.9	6.97	8 12
15.87	8	28.0	6.99	10 11
13.51	11	28.0	7.00	9 27
17.14	3	28.2	7.04	16 50
17.38	1	28.2	7.05	6 17
17.83	1	28.2	7.06	5 58
17.42	2	28.2	7.06	19 37
16.07	8	28.3	7.08	9 00
17.87	1	28.4	7.10	8 45
17.87	1	28.4	7.10	11 00
17.30	2	28.4	7.11	19 13
17.44	2	28.4	7.11	17 19
15.29	9	28.5	7.13	19 03
17.74	1	28.6	7.14	12 06
17.40	2	28.6	7.14	13 01
17.36	2	28.6	7.15	13 06
17.36	3	28.7	7.17	16 53
17.67	3	28.9	7.22	17 20
14.54	12	28.9	7.23	5 27
17.42	3	29.1	7.28	8 52
17.70	1	29.3	7.32	10 36
16.58	3	29.3	7.33	9 42
15.83	6	29.4	7.36	6 15
16.52	3	29.5	7.37	19 52
17.87	1	29.5	7.37	11 46
13.02	14	29.6	7.39	6 20
17.13	3	29.6	7.40	7 39

841—900

Mag.		α 47^{m}	x	$y-10'$
		s	′	′ ″
17.22	2	29.6	7.40	12 12
17.83	1	29.6	7.41	13 12
17.07	3	29.8	7.45	10 30
17.46	2	29.8	7.46	18 53
12.28	14	29.8	7.46	7 17
16.48:	1	30.0	7.50	7 07
17.83	1	30.2	7.54	17 57
12.50	14	30.2	7.55	6 19
16.76	3	30.3	7.57	5 01
16.63	3	30.4	7.61	8 16
17.33	3	30.4	7.61	18 20
12.19	15	30.4	7.61	12 06
17.83	1	30.6	7.64	12 47
16.66	3	30.6	7.64	5 33
14.47	11	30.7	7.67	9 50
17.47	2	30.8	7.69	9 39
17.28	3	30.8	7.69	9 35
17.53	3	30.8	7.69	13 48
15.69	9	30.8	7.70	17 12
16.91	3	30.8	7.71	7 27
16.84	3	30.9	7.72	8 24
17.83	1	30.9	7.72	15 36
15.91	7	30.9	7.72	16 02
17.82	2	31.0	7.75	19 19
17.15	2	31.0	7.75	9 38
17.44	2	31.1	7.77	18 56
17.26	3	31.1	7.78	14 28
17.40	2	31.2	7.79	12 20
13.80	12	31.2	7.80	9 20
17.66	3	31.2	7.81	14 57
17.30	2	31.4	7.84	18 50
17.16	3	31.4	7.86	10 10
16.12	8	31.6	7.89	12 38
14.52	9	31.6	7.90	16 34
17.15	3	31.8	7.95	7 06
17.36	2	31.8	7.96	16 49
17.61	1	31.8	7.96	14 22
17.23	3	31.9	7.97	6 00
17.56	3	31.9	7.97	17 10
17.34	2	31.9	7.97	17 26
16.47	3	32.0	7.99	14 05
15.83	9	32.0	8.01	17 59
16.26	5	32.1	8.03	5 04
17.79	1	32.2	8.04	14 57
17.83	1	32.4	8.10	7 19
17.21	3	32.4	8.11	5 10
16.97	3	32.4	8.11	17 39
17.79	1	32.4	8.11	18 09
17.66	2	32.7	8.18	17 59
16.45	3	32.7	8.18	6 50
16.75	1	32.8	8.19	19 41
14.34	10	32.9	8.23	15 45
14.78	11	33.0	8.24	15 54
16.52	3	33.0	8.24	9 00
17.33	3	33.0	8.24	6 10
16.87	3	33.2	8.31	5 25
16.81	3	33.2	8.31	10 17
13.42	13	33.3	8.32	10 00
17.45	2	33.4	8.35	10 15
17.10	2	33.4	8.36	17 59

25 prec. + 76.^{s}8, − 1′ 43″

1s—60s				61s—120s				121s—180s				181s—240s				241s—300s			
Mag.	α 46^{m}	x	$y-10'$	Mag.	α 46^{m}	x	$y-10'$	Mag.	α 46^{m}	x	$y-10'$	Mag.	α 46^{m}	x	$y-10'$	Mag.	α 47^{m}	x	$y-10'$
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
16.58 2	18	89.4	−10.0	14.94 8	27	91.8	−9.2	17.08 2	33	93.4	−2.6	16.54 2	54	98.6	−20.6	17.57 2	5	1.2	−0.4
17.19 2	18	89.4	−8.7	16.69 2	28	91.9	−14.1	16.80 2	34	93.5	−4.4	12.51 11	54	98.6	+0.1	17.47 2	5	1.3	−1.9
17.40 2	19	89.6	−13.1	17.47 2	28	91.9	−8.2	15.80 7	35	93.6	−4.0	17.43 2	54	98.6	+0.3	16.71 2	6	1.5	−20.7
17.49 2	18	89.6	−10.9	17.49 2	28	92.0	−17.6	15.54 7	34	93.6	−3.2	16.58 2	54	98.6	+0.7	17.08 2	7	1.6	−22.0
16.42 2	19	89.7	−10.6	15.66 7	28	92.0	−5.4	17.44 2	35	93.8	−3.2	16.63 2	55	98.8	−21.6	15.30 8	7	1.6	−21.1
15.91 6	19	89.7	−7.9	17.47 2	28	92.1	−15.6	17.55 2	36	93.9	−4.8	10.57 11	55	98.8	−20.2	16.00 6	6	1.6	−20.4
17.38 2	19	89.8	−13.2	17.32 2	28	92.1	−3.8	16.68 2	36	94.0	−3.7	17.32 2	55	98.8	−3.9	16.14 6	6	1.6	−3.7
17.49 2	20	89.9	−7.1	15.81 7	29	92.2	−17.1	17.51 2	36	94.0	−1.8	17.49 2	55	98.8	−0.5	17.16 2	6	1.6	+0.1
17.47 2	20	89.9	−6.7	14.35 10	29	92.2	−7.6	15.87 7	36	94.1	−2.6	17.24 2	55	98.8	+0.5	17.40 2	7	1.8	−22.0
17.51 2	20	90.0	−13.7	16.58 2	29	92.2	−3.7	17.14 2	37	94.2	−4.5	14.26 11	56	99.1	−20.8	17.36 2	7	1.8	−20.4
16.90 2	20	90.0	−13.2	17.36 2	29	92.2	−3.1	17.00 2	38	94.4	−2.7	16.41 4	56	99.1	−4.6	14.92 8	7	1.8	−4.4
14.21 10	20	90.0	−8.6	17.51 2	29	92.3	−16.0	17.03 2	38	94.5	−4.5	16.25 4	56	99.1	−4.5	14.58 9	7	1.8	−4.2
15.95 6	20	90.1	−14.6	17.25 2	29	92.3	−10.6	16.46 2	38	94.6	−3.8	17.08 2	56	99.1	−0.9	17.47 2	7	1.8	−1.4
17.47 2	20	90.1	−6.7	16.78 2	29	92.4	−16.0	16.00 5	38	94.6	−3.0	11.15 10	57	99.2	−20.2	17.16 2	7	1.8	−0.1
16.46 2	21	90.2	−14.0	16.00 6	30	92.4	−15.4	14.87 7	40	94.9	−3.6	15.98 6	57	99.2	−1.7	17.63 2	8	1.9	−4.2
15.95 6	21	90.2	−12.8	17.10 2	30	92.4	−15.2	15.46 6	40	94.9	−2.0	16.93 2	57	99.2	−0.5	15.87 7	8	1.9	−1.4
16.66 2	21	90.2	−10.4	17.57 2	30	92.4	−14.8	17.44 2	40	95.0	−4.4	16.17 6	57	99.3	−4.4	16.49 2	8	2.0	−1.4
15.83 7	21	90.2	−8.8	17.16 2	30	92.4	−14.4	17.21 2	40	95.0	−3.6	14.52 10	58	99.6	−4.8	16.49 2	8	2.0	−0.3
14.38 10	21	90.3	−9.4	15.97 6	30	92.4	−7.8	17.21 2	41	95.2	−20.1	16.03 6	58	99.6	−3.2	12.34 14	8	2.1	+0.9
17.42 2	21	90.3	−7.4	17.42 2	29	92.4	−6.2	15.81 7	41	95.2	−3.0	14.64 6	58	99.6	−0.6	16.65 2	9	2.2	−3.8
14.78 8	21	90.3	−6.4	17.57 2	30	92.4	−4.6	17.59 2	41	95.2	−2.2	16.54 2	59	99.7	−2.9	17.21 2	9	2.2	−3.4
17.13 2	22	90.4	−14.4	16.61 2	30	92.5	−16.4	15.05 7	41	95.2	−1.4	16.56 2	59	99.8	−20.6	15.51 6	9	2.2	+0.3
17.41 2	22	90.4	−13.1	17.18 2	30	92.5	−9.2	16.97 2	41	95.2	−0.6	17.04 2	59	99.8	−20.2	14.28 8	9	2.2	+0.4
13.77 12	22	90.4	−12.6	15.96 5	30	92.6	−17.1	17.10 2	42	95.4	−2.6	16.13 6	59	99.8	−3.4	11.04 9	9	2.2	+0.7
17.39 2	22	90.4	−10.8	16.00 6	30	92.6	−14.5	16.70 2	42	95.6	−4.0	15.67 7	60	99.9	−2.8	17.21 2	9	2.3	−3.8
16.73 2	22	90.4	−9.2	15.55 7	30	92.6	−14.2	17.49 2	43	95.7	−20.6	16.23 4	60	0.0	−2.2	17.38 2	9	2.3	−0.9
17.51 2	22	90.4	−8.6	16.03 5	30	92.6	−11.4	15.95 6	44	96.0	−20.8	16.10 4	60	0.0	−0.1	17.33 2	10	2.5	−3.2
15.26 7	22	90.6	−15.4	16.19 4	30	92.6	−5.9	16.98 2	44	96.0	−1.2	14.09 8	60	0.0	+0.1	17.14 2	11	2.7	−1.5
16.77 2	22	90.6	−8.9	17.47 2	30	92.6	−4.6	17.20 2	45	96.2	−4.2	17.63 2	60	0.1	−3.8	17.34 2	11	2.8	−4.5
17.51 2	22	90.6	−6.6	14.64 10	31	92.7	−18.2	16.81 2	45	96.2	−4.0	17.49 2	60	0.1	−0.6	14.59 8	11	2.8	−4.2
17.02 2	23	90.7	−14.6	13.78 12	31	92.7	−5.8	15.73 7	46	96.5	−20.8	17.33 2	61	0.2	−20.4	15.98 4	11	2.8	−0.4
17.57 2	23	90.8	−11.6	17.49 2	31	92.8	−18.6	16.72 2	46	96.5	−20.6	17.57 2	61	0.2	−20.2	17.43 2	12	2.9	−0.5
17.14 2	23	90.8	−6.7	15.94 5	31	92.8	−18.3	16.70 2	48	97.0	−20.0	17.04 2	61	0.2	−4.2	15.26 7	12	3.0	−21.7
15.73 7	24	90.9	−15.6	16.08 6	31	92.8	−8.8	16.15 4	48	97.1	−20.0	16.01 6	61	0.2	−2.3	16.52 2	12	3.0	+0.2
15.82 6	24	90.9	−12.2	17.57 2	31	92.8	−4.0	17.57 2	49	97.2	−20.6	16.72 2	61	0.2	0.0	15.10 7	13	3.2	−4.4
12.62 15	24	90.9	−11.8	16.58 2	32	92.9	−13.0	15.93 6	49	97.2	−1.4	17.12 2	61	0.2	+0.6	17.34 2	13	3.2	+0.4
16.00 6	24	90.9	−10.1	16.66 2	32	92.9	−10.7	17.40 2	49	97.2	−0.2	15.74 6	61	0.3	−3.0	15.64 2	13	3.2	+0.6
16.98 2	24	90.9	−8.0	15.99 6	32	92.9	−4.8	16.72 2	49	97.3	−2.0	16.76 2	61	0.3	+0.8	16.93 2	13	3.3	−20.4
14.23 9	24	90.9	−6.4	16.16 4	32	92.9	−3.0	15.82 7	50	97.4	−2.8	16.07 6	62	0.4	−2.9	17.59 2	13	3.3	−20.3
16.68 2	24	91.0	−15.0	14.47 9	32	93.0	−17.0	16.96 2	50	97.4	−0.4	15.11 7	61	0.4	−1.4	13.93 10	13	3.3	−2.3
17.14 2	24	91.0	−14.2	16.06 5	32	93.0	−15.8	14.52 8	49	97.4	0.0	16.11 4	61	0.4	+0.4	16.11 4	14	3.4	−3.7
17.38 2	24	91.1	−14.0	16.71 2	32	93.0	−13.9	16.54 2	50	97.5	−20.2	16.70 2	62	0.5	−2.4	16.06 6	14	3.4	−3.2
16.55 2	25	91.2	−15.7	16.06 6	32	93.0	−8.5	12.93 13	50	97.5	−3.7	17.36 2	62	0.6	−4.9	14.06 11	14	3.5	−0.3
17.14 2	25	91.2	−4.6	17.51 2	32	93.0	−4.9	15.46 8	50	97.6	−4.4	16.11 6	62	0.6	−2.2	15.67 7	14	3.5	+0.4
15.35 7	26	91.4	−15.0	15.96 6	32	93.0	−4.4	17.70 2	51	97.6	−3.1	14.67 8	62	0.6	−2.0	16.52 2	14	3.6	−20.3
15.95 5	26	91.4	−14.7	17.19 2	32	93.0	−2.4	15.82 7	50	97.6	−0.8	17.36 2	62	0.6	−0.9	15.90 7	14	3.6	−0.5
16.03 6	26	91.4	−5.6	15.78 7	32	93.1	−18.0	17.12 2	51	97.8	−21.2	16.64 2	62	0.6	−0.6	13.04 14	16	3.9	−21.3
17.43 2	25	91.4	−4.6	17.57 2	33	93.2	−16.3	17.41 2	51	97.8	−4.6	17.15 2	63	0.7	−21.9	17.55 2	16	4.0	−3.1
16.01 5	26	91.6	−14.5	17.62 2	33	93.2	−16.1	16.79 2	51	97.8	−3.9	12.29 15	63	0.8	−22.2	17.20 2	16	4.0	−0.8
17.80† 2	26	91.6	−14.4	13.74 11	33	93.2	−15.4	17.04 2	51	97.8	−0.6	14.41 8	63	0.8	−1.4	16.07 4	16	4.1	−4.7
16.10 6	26	91.6	−11.6	16.92 2	33	93.2	−15.2	16.38 2	51	97.8	+0.4	17.57 2	63	0.8	0.0	16.92 2	16	4.1	−4.5
17.01 2	26	91.6	−10.2	15.61 6	33	93.2	−13.0	17.49 2	52	98.0	−21.4	15.70 7	63	0.8	+0.5	16.68 2	16	4.1	−0.5
17.44 2	26	91.6	−9.6	17.53 2	33	93.2	−12.6	16.66 2	52	98.0	−21.0	16.88 2	63	0.8	+1.0	17.12 2	16	4.1	0.0
17.44 2	26	91.6	−8.3	15.98 6	33	93.2	−11.9	14.82 8	52	98.0	−2.6	17.29 2	64	0.9	−21.7	16.18 4	17	4.2	−21.1
14.56 9	26	91.6	−6.3	17.09 2	33	93.2	−11.0	16.52 2	52	98.0	−2.2	17.34 2	64	0.9	−0.4	16.86 2	17	4.2	−2.7
16.54 2	26	91.6	−5.6	16.03 6	33	93.2	−9.6	17.16 2	53	98.2	−1.8	16.59 2	64	1.0	−20.0	16.45 2	17	4.2	−1.4
11.01 9	26	91.6	−4.4	16.88 2	33	93.3	−17.2	17.51 2	53	98.3	0.0	16.92 2	64	1.1	−3.2	17.65 2	17	4.3	−3.7
16.78 2	27	91.7	−15.6	16.80 2	33	93.3	−14.4	16.75 2	54	98.4	−20.1	15.88 7	64	1.1	−2.0	16.15 6	17	4.4	−4.1
14.56 10	27	91.7	−11.6	17.16 2	33	93.3	−13.4	14.40 10	54	98.4	−20.0	17.11 2	64	1.1	−0.8	16.96 2	18	4.4	−1.9
15.90 7	27	91.7	−11.0	14.61 10	34	93.4	−18.7	17.10 2	53	98.4	−0.4	17.04 2	65	1.2	−2.4	17.00 2	18	4.4	−0.7

25 prec. + $76^{s}.8$, − 1′ 42″

6^h Area 98. Supplementary Stars − 0°, + 0°

301s—340s				
Mag.		α 47^m	x	$y-10'$
		s	′	′
16.92	2	18	4.6	− 4.4
17.06	2	18	4.6	− 1.6
16.68	2	18	4.6	− 1.0
12.86	13	18	4.6	− 0.8
17.57	2	19	4.7	−20.1
16.50	2	19	4.8	− 3.6
16.12	4	20	4.9	− 0.5
15.88	6	20	5.1	− 4.6
16.90	2	20	5.1	− 4.0
17.40	2	20	5.1	− 0.3
16.54	2	21	5.3	− 1.4
16.59	2	22	5.4	−20.6
16.68	2	22	5.4	− 3.0
15.90	6	22	5.5	− 4.8
17.04	2	23	5.6	−20.8
17.61	2	22	5.6	− 3.4
15.92	6	23	5.8	− 4.6
16.70	2	23	5.8	− 4.1
16.97	2	23	5.8	− 2.4
16.70	2	23	5.8	− 1.9
17.34	2	24	5.9	− 4.6
16.48	2	24	6.0	−20.4
16.05	6	25	6.2	− 4.0
16.01	6	26	6.4	− 4.4
17.34	2	26	6.4	− 3.4
15.91	7	26	6.4	− 2.4
17.18	2	26	6.5	−20.4
15.78	7	27	6.6	−20.2
17.44	2	26	6.6	− 4.8
17.46	2	27	6.8	− 2.3
17.44	2	28	7.0	− 3.9
17.47	2	28	7.0	− 3.6
17.47	2	29	7.2	− 3.6
16.72	2	29	7.3	− 4.6
15.98	6	30	7.5	− 4.8
15.41	6	30	7.6	− 4.3
16.78	2	30	7.6	− 2.8
16.84	2	31	7.8	− 2.6
16.00	6	32	8.0	− 4.2
17.38	2	32	8.0	− 3.6

341s—380s				
Mag.		α 47^m	x	$y-10'$
		s	′	′
17.51	2	32	8.1	− 2.8
17.16	2	33	8.2	− 2.2
17.53	2	33	8.3	− 3.4
14.62	10	34	8.4	−13.4
15.20	7	34	8.4	− 9.4
17.35	2	34	8.4	− 6.9
15.83:	7	34	8.4	− 4.2
17.40	2	33	8.4	− 2.8
17.00	2	34	8.5	− 4.8
17.51	2	34	8.5	− 2.9
16.68	2	34	8.6	−18.2
17.38	2	34	8.6	−15.2
17.53	2	34	8.6	− 8.8
17.08	2	34	8.6	− 7.6
17.36	2	34	8.6	− 6.3
17.49	2	34	8.6	− 2.2
15.48	6	35	8.7	−14.5
12.80	14	35	8.8	−17.9
17.32	2	35	8.8	−14.3
16.86	2	35	8.8	−11.8
16.64	2	35	8.8	− 5.6
14.81	8	36	8.9	−15.8
16.07	6	36	8.9	−15.2
17.34	2	36	8.9	−14.6
16.12	4	36	8.9	−12.7
17.26	2	36	8.9	−11.2
16.86	2	36	8.9	−11.0
16.74	2	36	8.9	−10.8
16.43	2	36	9.0	−17.3
14.83	7	36	9.0	−10.6
16.68	2	36	9.0	− 9.0
17.55	2	36	9.0	− 8.6
15.55	6	36	9.0	− 8.4
14.22	8	36	9.0	− 7.3
17.26	2	36	9.0	− 2.4
16.51	2	36	9.1	−15.7
15.33	6	36	9.1	−14.2
16.04	6	36	9.1	−10.8
17.37	2	36	9.1	− 9.4
17.55	2	36	9.1	− 6.7

381s—420s				
Mag.		α 47^m	x	$y-10'$
		s	′	′
17.44	2	36	9.1	− 4.8
17.45	2	37	9.2	−17.5
17.57	2	37	9.2	−16.4
16.01	6	37	9.2	−15.0
16.98	2	37	9.2	−11.0
11.74	9	37	9.2	− 3.9
15.86	7	37	9.3	− 3.0
16.40	2	38	9.4	−16.0
17.64	2	37	9.4	−13.9
16.42	2	38	9.4	−13.4
17.38	2	38	9.4	−13.0
17.53	2	38	9.4	−10.6
16.25	4	38	9.4	−10.4
16.12	6	38	9.5	−11.8
17.51	2	39	9.6	−16.6
14.53	10	38	9.6	−15.8
16.85	2	38	9.6	− 7.3
17.43	2	38	9.6	− 3.1
17.42	2	39	9.8	−13.2
16.84	2	39	9.8	− 9.2
14.89	6	39	9.8	− 9.1
16.02	6	39	9.8	− 8.8
17.32	2	39	9.8	− 8.0
16.01	6	39	9.8	− 7.4
16.40	2	39	9.8	− 7.0
15.94	6	39	9.8	− 6.5
17.38	2	40	9.9	−12.8
15.84	7	40	9.9	−12.4
16.62	2	40	9.9	−12.0
14.62	9	40	10.0	−17.4
17.38	2	40	10.0	−17.0
15.32	7	40	10.0	− 8.8
17.31	2	40	10.0	− 4.3
15.94	6	40	10.1	−11.7
12.16	12	40	10.1	−10.6
12.38	13	40	10.1	− 7.6
15.63	7	40	10.1	− 6.4
15.56	6	40	10.1	− 6.2
16.55	2	40	10.1	− 6.0
15.88	7	41	10.2	−16.2

421s—460s				
Mag.		α 47^m	x	$y-10'$
		s	′	′
14.78	8	41	10.2	−14.8
17.42	2	41	10.2	−10.6
16.90	2	41	10.2	− 5.4
17.36	2	41	10.3	− 9.0
15.72	6	42	10.4	−10.0
15.84	7	41	10.4	− 4.4
17.44	2	42	10.5	−11.6
16.62	2	42	10.5	− 9.8
15.99	6	42	10.5	− 4.6
16.85	2	43	10.6	− 7.5
15.13	7	42	10.6	− 7.4
17.52	2	43	10.8	−15.8
16.51	2	43	10.8	− 6.2
14.69	9	44	10.9	−11.4
17.57	2	44	10.9	−10.6
16.46	2	44	11.0	−15.1
13.89	10	44	11.0	−14.6
12.22	2	44	11.0	−10.6
16.05	6	44	11.0	−10.4
15.97	6	44	11.0	− 8.0
14.21	9	44	11.0	− 7.6
17.38	2	44	11.0	− 7.4
17.51	2	44	11.0	− 6.0
17.38	2	44	11.1	−14.6
17.43	2	45	11.2	−15.4
13.88	10	45	11.2	−14.4
15.40	7	45	11.2	−13.4
17.19	2	46	11.4	−14.4
17.24	2	46	11.4	−11.8
14.51	9	46	11.4	−11.3
17.42	2	46	11.4	−11.0
13.07	13	46	11.4	− 8.1
14.92	8	46	11.5	−11.4
11.73	6	46	11.5	−10.6
17.36	2	46	11.5	− 6.9
15.72	7	46	11.6	−11.6
15.98	6	47	11.7	−12.0
17.34	2	47	11.7	− 8.1
16.22	4	47	11.8	−11.2
17.36	2	47	11.8	− 8.2

461s—466s				
Mag.		α 47^m	x	$y-10'$
		s	′	′
15.54	7	47	11.8	− 7.0
17.29	2	48	11.9	− 8.8
17.17	2	48	12.0	− 7.8
16.87	2	48	12.1	−12.8
16.52	2	48	12.1	−12.0
17.43	2	49	12.2	−11.6

25 prec. + $76^{s}.8$, − 1′ 43″

7^h Area 99. Center for 1900: 7^h 50^m − 0° 20′ (15′ × 15′) − 0°

1—10				
Mag.		α 49^m	x	$y-20'$
		s	′	′ ″
15.77	8	10.8	87.69	14 25
16.42	5	10.9	87.72	15 54
17.10	3	11.2	87.79	12 58
16.28	6	11.4	87.86	15 08
17.54	3	11.5	87.88	6 03
16.51	5	11.6	87.89	17 06
17.67	2	11.7	87.93	16 55
17.15	3	12.0	88.00	9 58
17.78	1	12.2	88.05	17 38
16.48	5	12.6	88.14	10 11

11—20				
Mag.		α 49^m	x	$y-20'$
		s	′	′ ″
17.36	3	12.6	88.14	7 33
17.61	3	12.7	88.17	19 59
17.61	3	12.8	88.19	18 07
16.14	6	12.8	88.20	16 32
14.87	10	13.2	88.29	18 44
16.11	6	13.2	88.29	7 23
14.20	12	13.4	88.36	10 53
15.18	9	13.5	88.37	14 04
16.05	8	14.0	88.50	15 48
16.34	6	14.2	88.55	14 58

21—30				
Mag.		α 49^m	x	$y-20'$
		s	′	′ ″
14.09	11	14.6	88.66	18 33
17.63	3	14.6	88.66	6 00
14.72	10	14.8	88.69	12 44
16.28	6	14.9	88.72	8 37
17.39	3	15.1	88.77	16 29
16.27	6	15.2	88.81	5 24
17.69	3	16.3	89.07	19 02
17.34	3	16.3	89.07	19 19
16.58	5	16.3	89.08	16 45
15.84	8	16.4	89.09	10 57

31—40				
Mag.		α 49^m	x	$y-20'$
		s	′	′ ″
17.36	3	16.4	89.09	8 13
15.32	8	16.4	89.11	17 50
17.06	3	16.5	89.12	6 31
15.37	8	17.1	89.28	15 12
14.95	10	17.2	89.29	13 16
16.32	6	17.2	89.31	16 32
16.48	5	17.7	89.42	7 15
16.07	8	17.8	89.44	11 22
16.43	5	17.8	89.46	16 54
16.81	3	17.9	89.48	6 07

41—50				
Mag.		α 49^m	x	$y-20'$
		s	′	′ ″
14.01	12	17.9	89.48	5 01
17.55	3	18.0	89.50	8 27
17.82	2	18.1	89.53	13 06
14.17	12	18.4	89.61	6 18
15.47	8	18.5	89.62	8 53
14.94	10	19.1	89.77	18 38
17.73	3	19.1	89.78	7 45
17.82	2	19.1	89.78	14 12
14.16	11	19.3	89.82	11 33
16.28	6	19.3	89.82	15 29

25 prec. + $76^{s}.8$, − 3′ 50″

Area 99

51—110				111—170				171—230				231—290				291—350			
Mag.	α 49^{m}	x	$y-20'$	Mag.	α 49^{m}	x	$y-20'$	Mag.	α 49^{m}	x	$y-20'$	Mag.	α 49^{m}	x	$y-20'$	Mag.	α 49^{m}	x	$y-20'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
15.99 8	19.4	89.84	19 46	17.94 1	26.3	91.57	18 03	16.51 5	33.9	93.47	10 08	15.50 8	42.8	95.69	18 54	15.93 8	51.9	97.98	7 48
15.86 8	19.4	89.86	19 40	17.59 3	26.4	91.60	6 51	15.82 8	33.9	93.47	7 22	16.65 3	42.8	95.71	6 53	16.25 8	52.1	98.03	12 28
17.94 1	19.5	89.87	15 19	17.69 3	26.7	91.67	6 31	17.82 2	34.0	93.49	18 36	15.39 8	43.3	95.83	14 58	16.66 5	52.5	98.12	14 15
16.38 6	19.5	89.88	8 14	17.10 3	26.7	91.67	19 19	14.62 10	34.3	93.57	18 11	15.42 8	43.5	95.88	9 04	14.96 9	52.5	98.12	8 36
17.86 2	19.9	89.97	15 08	13.30 13	27.0	91.75	9 57	14.06 10	34.7	93.68	7 02	16.36 5	43.5	95.88	9 39	16.27 8	52.8	98.19	11 33
16.89 3	19.9	89.98	18 23	14.19 11	27.5	91.88	5 42	17.40 3	34.8	93.69	18 39	17.66 3	43.6	95.89	16 15	17.26 3	52.8	98.19	15 03
17.71 2	20.0	89.99	15 19	14.63 10	27.5	91.88	7 11	13.80 11	34.8	93.69	14 04	18.04 2	43.7	95.93	10 35	17.54 2	52.8	98.21	8 02
17.43 3	20.1	90.02	6 21	17.20 3	27.5	91.88	10 43	13.03w 11	35.0	93.76	8 04	17.30 3	43.7	95.93	7 29	16.56 4	53.1	98.28	8 47
16.77 3	20.1	90.02	7 49	17.94 1	27.8	91.94	10 25	17.67 2	35.1	93.78	16 58	16.55 6	44.2	96.04	12 27	17.00 3	53.4	98.34	12 29
15.55 7	20.1	90.03	8 15	17.23 3	28.0	92.01	11 56	17.73 3	35.2	93.79	5 45	17.02 3	44.2	96.06	16 55	17.74 2	53.5	98.37	9 24
16.71 5	20.2	90.06	15 00	17.01 3	28.3	92.07	19 57	16.26 8	35.2	93.79	13 46	15.66 8	44.3	96.07	5 37	17.34 3	53.5	98.37	6 19
17.67 2	20.3	90.07	10 45	18.04 2	28.4	92.09	13 47	16.79 5	35.2	93.79	14 54	15.51 8	44.4	96.11	17 01	17.24 3	53.6	98.41	6 06
17.86 2	20.4	90.09	12 22	17.58 2	28.5	92.12	6 27	17.53 2	35.5	93.85	18 32	16.37 6	44.5	96.12	13 42	16.45 6	53.7	98.43	19 14
15.11 9	20.6	90.15	12 49	15.02 9	28.5	92.13	6 02	17.95 2	35.5	93.87	16 58	15.76 8	44.7	96.18	5 17	17.25 3	53.9	98.47	8 12
15.06 9	20.6	90.16	5 43	15.86 8	28.7	92.18	19 53	14.79 10	35.5	93.88	5 38	18.27 2	44.8	96.20	14 50	17.29 3	54.0	98.51	7 05
16.48 6	20.7	90.17	14 57	14.15 12	28.8	92.20	10 33	17.74 2	35.8	93.95	7 50	17.71 2	44.9	96.23	18 34	15.99 7	54.5	98.62	12 46
17.52 3	20.9	90.23	14 44	16.62 5	28.9	92.22	5 28	16.49 5	35.8	93.96	11 28	17.52 2	45.3	96.32	8 55	16.33 6	54.6	98.66	5 19
17.78 2	21.0	90.24	13 21	17.90 2	29.1	92.27	16 56	17.82 2	35.9	93.98	9 38	17.08 3	45.4	96.34	7 49	17.24 3	54.9	98.73	14 38
13.15w 11	21.2	90.29	11 26	17.78 2	29.2	92.29	11 54	17.32 3	36.4	94.10	13 22	16.59 5	45.4	96.35	19 03	16.00 6	55.0	98.75	12 36
14.19 12	21.3	90.33	7 13	17.71 2	29.3	92.33	19 17	16.58 5	36.4	94.11	5 40	16.94 5	45.6	96.40	12 55	17.91 2	55.8	98.94	10 58
16.27 6	21.5	90.37	13 59	17.34 3	29.8	92.44	14 20	15.93 8	36.5	94.12	5 31	17.04 3	46.0	96.49	10 31	14.93 9	55.8	98.96	5 38
16.74 3	21.6	90.39	19 02	17.20 3	29.8	92.45	5 36	17.16 3	36.7	94.17	14 52	16.48 6	46.0	96.51	13 26	17.60 2	56.1	99.03	19 29
14.22 11	21.7	90.43	13 10	17.10 3	29.9	92.47	8 37	17.74 2	36.7	94.17	7 44	15.60 7	46.1	96.53	19 11	17.20 3	56.2	99.04	15 34
16.45 5	21.8	90.44	10 45	15.18 8	30.0	92.49	14 29	16.35 6	36.9	94.22	6 22	18.20 2	46.2	96.56	13 37	14.02 12	56.4	99.10	18 54
17.62 3	22.0	90.51	12 25	18.04 2	30.2	92.56	16 05	16.47 5	37.2	94.30	7 02	17.32 3	46.3	96.58	15 35	17.26 3	56.6	99.14	14 44
14.26 9	22.1	90.52	8 12	18.04 2	30.5	92.62	16 11	12.56w 14	37.5	94.38	12 04	16.28 6	46.4	96.60	10 11	16.52 6	57.3	99.32	12 28
16.42 6	22.1	90.53	11 18	16.18 8	30.5	92.62	14 39	16.11 8	37.5	94.38	16 13	17.83 2	46.5	96.62	11 03	15.86 7	57.4	99.34	15 42
17.41 3	22.5	90.63	5 58	17.60 2	30.5	92.63	13 46	17.38 2	37.7	94.43	18 54	17.71 2	46.5	96.63	17 41	17.22 3	57.5	99.37	16 49
14.77 10	22.5	90.63	16 54	17.63 3	30.5	92.63	6 29	16.86 3	38.0	94.50	18 18	17.37 2	46.7	96.68	18 52	17.12 3	57.5	99.37	8 48
17.38 3	22.6	90.66	19 39	17.72 2	30.6	92.64	14 02	15.20 8	38.1	94.52	8 53	16.61 1	46.7	96.68	6 18	16.09 6	57.9	99.48	6 53
14.01 10	22.7	90.68	6 40	16.92 3	30.9	92.73	10 08	17.49 3	38.3	94.58	15 05	13.38 11	47.0	96.74	14 13	15.12 10	58.0	99.49	18 40
17.02 2	22.8	90.69	7 56	14.18 12	31.0	92.76	18 23	13.16w 11	38.6	94.64	7 00	17.42 2	47.1	96.78	18 39	16.36 6	58.2	99.55	9 53
17.17 3	22.8	90.70	18 19	17.73 3	31.1	92.77	15 47	17.32 3	38.6	94.66	17 56	16.47 6	47.3	96.82	9 17	17.68 2	58.2	99.56	8 30
17.68 2	22.9	90.72	15 35	16.74 5	31.1	92.77	10 42	14.40 11	38.7	94.68	9 59	17.94 1	47.6	96.89	18 30	17.80 2	58.2	99.56	16 39
16.62 5	22.9	90.72	17 48	12.56w 14	31.1	92.78	12 31	16.59 5	38.8	94.69	14 36	17.83 2	47.8	96.94	10 46	16.20 6	58.3	99.57	8 03
12.56w 13	23.0	90.76	8 45	17.60 2	31.3	92.83	8 40	17.36 3	39.0	94.74	14 04	16.87 5	48.0	97.00	11 52	16.34 6	58.3	99.57	8 48
16.15 8	23.1	90.77	17 12	16.02 8	31.5	92.88	10 20	16.77 5	39.1	94.77	17 33	15.89 8	48.0	97.01	6 37	17.30 2	58.4	99.59	13 07
17.71 2	23.2	90.80	10 12	16.94 3	31.6	92.89	14 25	16.35 6	39.2	94.80	8 48	15.32 8	48.2	97.05	15 45	16.64 5	58.6	99.66	16 38
13.34w 13	23.3	90.83	12 36	17.44 2	31.6	92.89	8 33	17.88 2	39.5	94.87	13 29	16.71 5	48.3	97.08	8 52	16.98 3	58.7	99.68	7 45
17.71 1	23.7	90.92	5 36	14.72 10	31.6	92.89	9 18	18.04 2	39.6	94.89	10 47	17.55 3	48.6	97.14	16 08	17.44 3	59.0	99.75	11 36
17.82 2	23.7	90.93	11 04	17.13 3	31.9	92.98	10 23	17.00 3	39.6	94.90	6 56	15.67 8	48.6	97.15	6 18	17.28 2	59.1	99.78	11 56
18.02 1	23.8	90.94	14 40	14.07 10	32.1	93.03	11 03	16.89 3	39.8	94.96	5 15	18.09 1	48.8	97.19	14 50	15.39 7	59.3	99.82	9 20
17.15 3	24.0	91.00	12 59	16.01 6	32.1	93.03	13 01	14.47 9	39.9	94.97	18 41	14.62 10	48.8	97.21	6 35	16.47 5	59.3	99.83	18 51
17.45 3	24.4	91.11	13 49	16.28 6	32.1	93.03	18 23	17.46 2	39.9	94.98	7 54	15.70 8	48.8	97.21	7 18	17.82 2	59.4	99.84	11 21
17.55 3	24.7	91.17	12 41	17.64 2	32.3	93.07	12 26	15.80 8	40.1	95.03	10 54	17.67 2	49.0	97.24	9 59	15.93 8	59.8	99.96	14 02
17.52 3	25.1	91.27	11 25	15.99 8	32.3	93.07	6 26	14.03 10	40.3	95.08	19 57	16.75 5	49.2	97.31	19 04	17.86 1	60.0	99.99	19 04
17.71 3	25.1	91.28	15 10	17.66 3	32.7	93.17	6 23	9.81w 8	40.4	95.09	13 54	17.76 2	49.4	97.36	12 19	17.30 2	60.2	0.05	9 52
17.16 3	25.3	91.33	6 11	15.62 8	32.7	93.17	18 35	17.15 3	41.0	95.24	7 37	16.23 6	49.5	97.37	9 57	17.63 1	60.5	0.12	17 12
14.51 9	25.3	91.33	8 21	15.94 8	32.7	93.18	18 39	16.43 5	41.3	95.32	5 59	16.42 6	49.5	97.38	9 19	16.03 8	60.7	0.18	11 43
15.84 8	25.3	91.33	19 56	17.32 1	33.0	93.24	18 22	17.20 3	41.3	95.32	15 46	16.37 6	49.8	97.44	19 21	17.13 3	60.8	0.19	12 46
16.24 6	25.5	91.38	19 21	18.00 2	33.0	93.25	15 27	16.31 6	41.3	95.33	10 12	17.21 3	50.1	97.52	17 44	17.63 2	61.0	0.24	10 58
16.13 8	25.6	91.39	17 08	16.64 5	33.1	93.27	16 39	16.18 6	41.6	95.40	14 38	16.36 7	50.1	97.53	16 10	14.11 10	61.1	0.27	15 48
15.10 9	25.6	91.39	7 22	16.65 5	33.1	93.27	19 51	17.38 2	41.7	95.43	19 57	15.37 7	50.1	97.53	10 41	15.22 8	61.4	0.34	14 29
16.29 6	25.7	91.42	8 42	17.20 3	33.3	93.33	5 30	17.53 3	42.0	95.49	19 15	14.98 8	50.3	97.57	18 25	17.71 3	61.6	0.39	12 07
16.49 6	25.7	91.42	14 02	18.08 2	33.5	93.37	12 41	17.34 2	42.1	95.53	19 17	14.68 10	51.1	97.77	18 10	14.15 12	61.6	0.41	14 21
17.34 3	25.7	91.43	18 37	14.38 11	33.5	93.38	16 01	14.20 11	42.2	95.56	9 28	16.32 6	51.2	97.79	9 45	16.36 6	61.9	0.47	18 29
15.45 7	25.8	91.44	15 32	17.78 1	33.6	93.39	5 51	17.62 3	42.3	95.58	17 07	17.70 3	51.2	97.80	7 21	16.81 3	61.9	0.48	8 07
16.34 5	26.1	91.52	5 07	17.44 2	33.6	93.40	18 12	17.52 3	42.4	95.59	6 35	14.89 8	51.3	97.83	8 50	13.65 11	61.9	0.48	5 38
17.34 3	26.1	91.52	9 52	17.62 3	33.7	93.42	19 44	18.03 2	42.4	95.59	11 45	16.06 4	51.5	97.88	16 58	17.42 3	62.3	0.57	19 04
16.35 6	26.2	91.56	9 18	18.02 1	33.7	93.43	17 37	15.78 8	42.6	95.65	6 01	16.83 5	51.8	97.95	15 28	17.50 2	62.4	0.60	18 08

25 prec. + $76^{\mathrm{s}}.8$, $-\ 3'\ 51''$

351—360				361—370				371—380				381—390				391—399			
Mag.	α 50^m	x	$y-20'$	Mag.	α 50^m	x	$y-20'$	Mag.	α 50^m	x	$y-20'$	Mag.	α 50^m	x	$y-20'$	Mag.	α 50^m	x	$y-20'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
12.95w 10	2.7	0.67	7 20	15.15 9	3.8	0.94	17 40	15.24 8	4.9	1.22	18 47	17.78 1	6.0	1.49	18 29	16.06 8	7.9	1.98	15 11
16.58 5	2.7	0.67	11 13	17.35 3	3.8	0.96	6 50	17.50 2	4.9	1.23	19 02	14.21 11	6.3	1.58	8 14	17.02 3	8.0	2.00	13 31
14.04 10	2.8	0.71	10 10	13.09 13	3.9	0.98	13 29	13.24 13	5.0	1.25	14 21	10.14w 9	6.6	1.64	9 46	17.67 3	8.4	2.11	19 49
16.51 5	3.0	0.76	7 52	17.25d 1	4.0	0.99	17 44	16.75 3	5.1	1.27	8 28	17.49 3	6.6	1.64	11 11	13.48 12	8.5	2.13	9 12
17.33 3	3.1	0.77	7 21	17.47 3	4.2	1.06	7 41	17.78 1	5.1	1.28	7 34	15.91 8	6.8	1.71	17 28	13.97 9	8.8	2.19	17 12
16.09 8	3.2	0.79	19 20	16.94 3	4.4	1.09	10 25	17.44 3	5.3	1.32	14 03	16.02 8	7.0	1.76	18 35	16.33 6	8.8	2.19	8 12
16.37 6	3.3	0.82	8 05	16.03 8	4.4	1.09	16 44	16.93 3	5.4	1.35	14 21	15.98 8	7.0	1.76	16 25	16.33 6	8.8	2.19	9 04
17.32 2	3.5	0.87	8 14	17.38 2	4.5	1.13	12 41	15.64 8	5.5	1.37	18 14	16.06 6	7.3	1.82	15 04	16.75 3	9.3	2.33	11 51
16.87 3	3.5	0.87	18 54	15.74 8	4.6	1.14	6 56	17.16 3	5.7	1.43	14 50	16.45 5	7.6	1.90	14 00	17.24 3	9.3	2.33	10 00
17.36 3	3.5	0.88	7 08	15.50 8	4.8	1.19	16 46	13.60 11	5.9	1.47	17 43	16.54 3	7.7	1.93	12 51				

25 prec. + 76^{s}.8, − 3′ 51″

7^h Area 99. Supplementary Stars − 0°

1s—40s				41s—80s				81s—120s				121s—160s				161s—200s			
Mag.	α 48^m	x	$y-20'$	Mag.	α 49^m	x	$y-20'$	Mag.	α 49^m	x	$y-20'$	Mag.	α 49^m	x	$y-20'$	Mag.	α 49^m	x	$y-20'$
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
16.15 4	55	83.7	13.0	17.53 2	5	86.3	20.0	16.20 4	11	87.8	21.7	15.82 7	28	92.1	22.2	17.37 2	38	94.6	25.4
15.35 7	55	83.8	15.3	17.57 2	5	86.3	17.3	17.59 2	12	88.0	21.0	17.49 2	29	92.2	24.8	15.87 7	39	94.8	25.2
16.31 4	56	84.0	13.8	16.65 2	5	86.3	17.2	16.27 4	14	88.4	23.1	16.97 2	29	92.2	22.2	15.92 7	39	94.8	20.4
16.75 2	56	84.0	11.3	15.87 7	5	86.4	18.2	15.89 7	14	88.4	20.6	17.57 2	29	92.2	21.8	17.09 2	40	95.0	23.1
16.95 2	56	84.0	10.7	12.07 14	5	86.4	10.0	16.16 4	15	88.7	21.0	15.66 7	29	92.3	24.2	15.39 7	40	95.1	23.0
16.87 2	56	84.1	11.3	16.87 2	5	86.4	9.6	16.13 5	15	88.8	21.1	15.44 7	29	92.3	22.0	17.53 2	41	95.2	24.8
17.22 2	57	84.2	16.4	16.01 7	6	86.5	11.9	17.24 2	16	88.9	21.5	17.49 2	30	92.4	25.2	17.57 2	41	95.4	22.4
16.63 2	58	84.4	15.0	17.62 2	6	86.5	11.7	16.15 5	17	89.2	23.0	15.68 7	30	92.4	24.4	15.98 7	42	95.4	4.6
12.85 12	57	84.4	14.1	15.99 5	6	86.5	7.0	13.05 12	17	89.2	22.2	16.20 5	29	92.4	4.8	14.39 8	42	95.5	24.4
17.30 2	58	84.4	9.8	17.51 2	6	86.6	17.7	16.21 5	18	89.4	20.6	17.26 2	30	92.5	3.4	14.50 6	42	95.6	3.2
15.18 7	58	84.6	18.4	16.10 5	6	86.6	6.2	17.56 2	18	89.6	21.2	17.57 2	30	92.6	23.4	17.49 2	43	95.7	24.6
14.51 10	58	84.6	16.2	17.59 2	7	86.7	17.7	17.59 2	18	89.6	21.0	14.78 9	31	92.8	21.2	17.45 2	43	95.8	25.2
17.43 2	58	84.6	15.0	14.97 8	7	86.8	18.4	16.32 5	18	89.6	20.0	17.59 2	31	92.8	4.9	17.65 2	44	95.9	20.2
16.21 4	58	84.6	9.8	17.33 2	7	86.8	16.8	17.35 2	20	90.0	24.0	15.64 7	31	92.8	2.8	17.45 2	44	96.0	25.2
16.22 4	59	84.8	13.4	16.01 5	7	86.8	7.5	17.49 2	20	90.0	3.6	17.62 2	32	92.9	23.0	17.34 2	44	96.0	5.0
17.59 2	60	85.0	14.3	17.09 2	8	86.9	15.4	16.47 4	20	90.1	21.6	17.55 2	32	93.0	22.6	17.18 2	44	96.1	22.8
16.73 2	60	85.0	8.6	17.02 2	8	87.0	19.7	17.59 2	21	90.2	21.5	14.72 9	32	93.0	21.8	16.71 2	44	96.1	22.6
16.07 5	61	85.2	14.0	17.51 2	8	87.0	17.0	15.04 8	21	90.2	20.5	15.75 5	32	93.0	3.3	17.65 2	44	96.1	20.3
16.24 5	61	85.2	12.7	16.59 2	8	87.0	15.4	16.95 2	22	90.4	20.6	17.49 2	32	93.1	25.1	14.99 8	45	96.2	22.6
17.51 2	61	85.2	12.6	16.37 4	8	87.0	10.4	16.06 7	21	90.4	20.2	16.25 5	32	93.1	4.8	16.32 5	45	96.2	4.4
15.86 7	61	85.2	10.4	17.53 2	8	87.0	6.6	15.07 8	21	90.4	20.0	17.51 2	33	93.2	22.6	15.83 7	45	96.2	3.2
17.49 2	61	85.3	17.6	17.65 2	8	87.1	17.4	17.67 2	22	90.6	20.7	17.05 2	33	93.3	23.4	17.49 2	45	96.2	2.3
16.17 5	62	85.4	19.6	17.61 2	9	87.2	19.0	16.65 2	23	90.8	24.5	15.71 5	34	93.4	3.9	15.03 8	45	96.3	22.5
11.40 12	62	85.5	9.1	16.47 4	9	87.2	12.0	17.22 2	23	90.8	4.2	16.21 5	34	93.5	4.7	13.64 10	46	96.4	22.0
16.10 5	62	85.6	9.5	17.59 2	9	87.3	20.0	17.24 2	24	91.0	4.8	16.28 4	34	93.6	3.4	17.45 2	46	96.4	20.5
17.03 2	62	85.6	8.8	15.88 6	9	87.3	14.4	16.06 5	24	91.1	24.3	17.51 2	35	93.7	24.7	16.84 2	46	96.6	23.0
17.51 2	62	85.6	8.4	13.12 11	9	87.3	14.0	17.45 2	25	91.3	21.8	16.25 4	35	93.8	24.8	16.26 4	47	96.8	24.0
17.23 2	63	85.7	16.6	17.27 2	9	87.3	9.0	15.83 7	26	91.4	24.6	16.27 3	35	93.8	23.7	17.59 2	47	96.8	23.0
16.08 5	63	85.7	13.4	17.23 2	9	87.3	8.0	17.67 2	26	91.4	20.4	17.53 2	36	94.0	23.4	15.78 5	48	96.9	25.0
17.07 2	63	85.8	17.5	16.73 2	10	87.4	20.8	17.47 2	25	91.4	3.5	17.43 2	36	94.0	22.1	16.29 4	48	97.0	22.7
15.85 7	63	85.8	14.5	17.59 2	10	87.4	19.4	16.50 4	26	91.6	21.5	8.98 7	36	94.0	21.7	17.51 2	48	97.0	3.3
17.59 2	63	85.8	11.4	16.44 4	10	87.4	13.5	14.96 8	27	91.7	23.5	17.39 2	36	94.0	21.2	16.06 5	48	97.0	2.7
16.27 4	63	85.8	9.6	16.11 5	10	87.4	8.6	15.85 7	27	91.7	3.9	14.36 9	37	94.2	25.2	15.38 7	48	97.1	21.0
17.39 2	64	86.0	14.5	16.63 2	10	87.5	18.3	17.36 2	27	91.8	23.8	15.17 7	37	94.2	24.3	16.84 2	49	97.2	2.5
16.32 4	64	86.0	12.6	16.24 5	10	87.5	18.0	16.23 4	27	91.8	23.4	16.10 5	37	94.3	24.8	17.65 2	49	97.3	22.2
16.97 2	64	86.0	10.8	15.59 7	10	87.5	15.8	17.21 2	27	91.8	3.7	16.87 2	38	94.4	25.0	17.57 2	50	97.4	23.8
16.08 5	64	86.1	18.4	13.83 10	11	87.6	21.4	14.10 9	28	92.0	2.8	14.77 9	38	94.4	24.6	17.59 2	51	97.6	23.8
16.20 5	64	86.1	14.1	17.55 2	10	87.6	17.5	17.45 2	28	92.1	23.3	17.29 2	38	94.4	21.9	13.64 9	50	97.6	4.0
16.18 5	64	86.1	8.9	16.75 2	10	87.6	13.8	15.92 7	28	92.1	22.6	17.43 2	37	94.4	4.2	14.19 9	51	97.8	20.2
15.91 5	64	86.1	7.8	16.95 2	11	87.8	22.4	14.41 10	28	92.1	22.4	17.51 2	37	94.4	3.0	17.57 2	51	97.8	4.6

25 prec. + 76^{s}.8, − 3′ 50″

7^{h} Area 99. Supplementary Stars − 0°

201*s*—225*s*

Mag.		α 49^{m}	x	$y-20'$
		s	′	′
17.35	2	52	97.9	23.3
14.12	7	52	98.1	4.7
14.50	9	53	98.3	2.8
15.16	8	53	98.4	21.4
16.21	5	54	98.4	3.6
17.71	2	54	98.6	21.0
15.82	7	55	98.6	3.4
15.92	7	55	98.7	4.9
15.91	7	56	98.9	24.8
17.09	2	56	98.9	21.0
17.47	2	56	98.9	20.1
16.38	4	56	99.0	24.0
16.86	2	56	99.0	20.2
17.47	2	56	99.0	3.4
17.35	2	57	99.2	20.2
17.45	2	58	99.4	24.4
15.63	7	58	99.4	22.1
16.29	4	59	99.8	22.2
17.15	2	59	99.8	4.0
17.71	2	60	99.9	21.6
17.61	2	60	99.9	20.4
12.88	15	60	0.0	24.4
16.43	4	60	0.0	22.4
17.53	2	60	0.1	23.0
17.28	2	61	0.2	20.4

226*s*—250*s*

Mag.		α 50^{m}	x	$y-20'$
		s	′	′
17.43	2	2	0.4	24.2
17.47	2	2	0.4	4.2
17.49	2	2	0.6	23.4
16.90	2	4	1.0	4.8
15.52	7	5	1.2	4.2
15.49	7	5	1.4	4.4
15.84	7	6	1.6	21.4
17.53	2	8	1.9	21.4
17.43	2	10	2.4	22.6
15.83	7	10	2.4	21.2
15.91	7	10	2.6	22.1
16.24	5	10	2.6	20.2
13.08	10	10	2.6	11.3
17.53	2	10	2.6	9.3
16.15	5	11	2.7	20.4
15.70	7	11	2.7	18.2
13.05	10	11	2.7	11.4
15.63	7	11	2.8	21.8
16.89	2	11	2.8	20.3
16.07	7	11	2.8	14.8
17.49	2	12	2.9	21.2
16.14	5	12	2.9	19.8
17.67	2	12	3.0	15.1
17.39	2	12	3.0	12.6
17.31	2	12	3.0	8.0

251*s*—275*s*

Mag.		α 50^{m}	x	$y-20'$
		s	′	′
14.58	9	12	3.0	7.0
16.05	5	12	3.1	21.6
17.27	2	13	3.2	20.4
15.67	7	13	3.2	11.7
17.51	2	13	3.2	9.2
17.57	2	13	3.2	8.4
15.50	7	13	3.2	6.2
17.65	2	13	3.3	17.4
16.45	4	13	3.3	14.8
17.59	2	14	3.4	15.3
15.89	7	14	3.4	11.1
16.31	5	13	3.4	8.6
16.24	5	13	3.4	7.7
17.59	2	14	3.5	9.2
16.26	5	14	3.6	19.1
15.46	7	14	3.6	18.4
15.05	4	14	3.6	11.3
17.59	2	14	3.6	8.8
17.45	2	14	3.6	8.4
16.82	2	14	3.6	7.6
16.13	5	15	3.8	20.9
14.91	7	15	3.8	20.1
16.81	2	15	3.8	20.0
17.61	2	15	3.8	12.4
16.16	5	15	3.8	6.8

276*s*—300*s*

Mag.		α 50^{m}	x	$y-20'$
		s	′	′
13.27	10	15	3.8	6.4
16.16	3	16	3.9	20.0
16.23	5	16	3.9	19.8
14.22	11	16	3.9	11.9
17.49	2	16	4.0	19.0
17.00	2	16	4.0	9.4
17.49	2	16	4.1	20.9
17.41	2	16	4.1	13.2
16.27	3	17	4.2	17.4
15.62	7	17	4.2	12.4
17.43	2	17	4.3	14.2
15.81	7	18	4.4	19.8
16.96	2	18	4.4	18.7
15.40	7	17	4.4	16.6
15.66	7	18	4.4	16.3
17.59	2	18	4.4	11.6
17.23	2	17	4.4	11.4
14.68	9	18	4.4	7.8
11.76	14	18	4.6	10.0
17.43	2	18	4.6	8.8
14.85	8	19	4.8	15.2
17.45	2	19	4.8	13.1
17.53	2	19	4.8	9.2
13.42	11	19	4.8	8.7
16.67	2	20	4.9	12.7

301*s*—320*s*

Mag.		α 50^{m}	x	$y-20'$
		s	′	′
17.47	2	20	5.0	17.6
16.93	2	20	5.1	9.0
17.41	2	21	5.2	13.3
17.49	2	21	5.2	10.8
17.53	2	21	5.3	15.8
16.25	5	21	5.3	13.7
15.06	7	22	5.4	18.8
16.31	4	22	5.4	16.8
16.05	5	22	5.4	15.8
15.94	7	22	5.4	12.2
15.20	7	22	5.4	9.0
17.45	2	22	5.6	17.7
15.53	7	22	5.6	14.2
17.53	2	22	5.6	13.6
15.97	5	23	5.8	13.2
17.43	2	24	6.0	16.4
16.23	3	24	6.0	16.1
15.68	7	24	6.0	10.2
17.14	2	26	6.4	14.4
16.19	4	26	6.6	13.8

25 prec. + $76^{\mathrm{s}}.8$, − 3′ 51″

8^{h} Area 100. Center for 1900: 8^{h} 49^{m} − 0° 10′ (15′ × 15′) − 0°

1—25

Mag.		α 48^{m}	x	$y-10'$
		s	′	′ ″
12.23w	13	22.3	90.58	6 24
16.94	3	22.8	90.70	8 20
14.97	10	22.8	90.70	13 08
13.89	11	22.8	90.71	11 18
17.14	3	24.1	91.02	6 59
14.77	10	24.8	91.19	15 47
14.25	11	25.5	91.37	12 50
17.24	2	26.8	91.71	15 06
17.42	3	27.5	91.87	11 45
16.98	3	27.6	91.91	14 27
16.12	7	28.3	92.07	13 27
14.71	9	28.3	92.07	19 59
12.09w	13	28.9	92.22	14 00
15.02	8	29.3	92.33	18 25
16.23	7	29.5	92.37	15 48
17.14	3	29.9	92.47	10 39
15.59	7	30.7	92.68	11 45
17.41	1	31.2	92.81	15 00
16.85	3	31.6	92.90	10 42
14.58	11	31.9	92.98	10 02
17.14	2	33.0	93.26	11 59
15.78	8	33.1	93.27	14 58
17.19	2	33.2	93.29	18 06
17.29	3	33.7	93.42	11 34
16.74	3	34.4	93.61	14 44

26—50

Mag.		α 48^{m}	x	$y-10'$
		s	′	′ ″
17.22	2	34.7	93.67	17 24
16.32	7	35.4	93.86	16 18
17.14	3	36.8	94.19	5 05
16.43	3	37.1	94.28	8 24
14.26	10	38.5	94.62	11 35
17.14	2	39.2	94.79	13 06
9.58w	6	39.7	94.92	12 08
9.72w	6	39.8	94.94	12 03
17.48	2	40.3	95.08	16 36
16.91	1	40.4	95.10	10 08
17.43	3	41.3	95.33	9 05
14.98	9	41.7	95.43	6 14
15.61	7	41.8	95.45	14 47
9.47w	8	42.2	95.56	10 05
15.04	8	42.6	95.64	17 41
14.19	11	42.7	95.67	10 52
17.18	2	43.1	95.77	11 29
17.19	2	43.8	95.95	17 55
14.88	10	44.9	96.22	7 22
16.30	5	45.4	96.35	6 32
17.56	1	45.4	96.35	15 54
17.16	2	45.9	96.47	11 25
17.08	2	46.2	96.56	11 46
15.83	7	46.5	96.62	13 10
15.24	8	47.0	96.75	10 52

51—75

Mag.		α 48^{m}	x	$y-10'$
		s	′	′ ″
17.33	3	47.1	96.77	5 26
15.45	7	47.2	96.81	18 07
12.67	15	47.8	96.96	9 39
14.01	12	48.6	97.15	19 30
16.78	3	48.8	97.19	7 05
16.98	3	50.4	97.61	9 04
16.44	7	50.7	97.68	12 00
15.96	7	51.0	97.76	19 23
17.17	1	51.8	97.95	14 33
17.21	2	52.2	98.04	16 44
15.49	5	52.2	98.05	19 26
9.27w	8	52.3	98.08	14 00
17.12	2	52.5	98.13	13 16
17.41d	1	52.9	98.23	7 11
17.26	2	53.2	98.31	18 10
16.71	3	53.3	98.33	18 16
11.88w	11	54.4	98.60	14 53
16.97	3	54.5	98.63	12 30
17.09	3	54.6	98.64	5 50
16.54	4	55.2	98.81	16 30
17.43	2	56.3	99.07	12 48
17.61	1	56.4	99.11	14 37
17.21	2	56.7	99.18	9 25
15.58	6	57.1	99.27	12 47
17.16	2	57.9	99.47	15 51

76—100

Mag.		α 49^{m}	x	$y-10'$
		s	′	′ ″
15.10	8	0.1	0.02	14 15
13.60	10	0.4	0.11	13 44
15.82	7	1.4	0.34	18 28
15.54	7	1.9	0.48	14 59
17.13	3	2.2	0.55	9 12
17.45	3	2.2	0.56	18 44
16.01	7	2.4	0.61	10 23
15.93	7	2.6	0.65	18 25
15.59	7	2.6	0.66	13 30
17.50	3	3.0	0.75	11 01
17.54	3	3.5	0.88	11 54
15.71	7	5.4	1.36	17 29
17.16	2	5.6	1.41	11 30
11.83w	10	5.8	1.44	8 46
17.23	3	6.3	1.58	9 35
12.85	14	6.7	1.67	16 19
14.80	10	7.2	1.80	19 37
16.95	2	8.5	2.13	16 37
16.05	7	9.8	2.44	6 05
17.16	2	10.8	2.70	13 02
16.74	3	11.5	2.88	15 16
15.01	5	12.0	3.01	5 16
17.18	2	12.1	3.02	9 00
16.52	3	12.1	3.03	15 04
16.59	3	12.2	3.06	10 10

101—120

Mag.		α 49^{m}	x	$y-10'$
		s	′	′ ″
17.10	3	12.7	3.17	11 09
16.26	5	12.9	3.23	8 55
17.12	2	13.8	3.45	18 19
17.32	3	13.9	3.48	6 41
13.25	11	14.0	3.49	5 17
16.48	3	14.0	3.51	19 29
13.85	11	14.3	3.57	11 27
16.90	3	15.1	3.77	5 34
14.80	10	16.6	4.14	19 01
14.16	10	17.5	4.37	12 07
15.50	8	17.8	4.44	8 02
15.10	9	18.3	4.57	13 00
15.82	7	18.4	4.60	17 58
17.22	2	19.1	4.78	16 39
13.36	12	19.3	4.83	8 19
17.05	3	20.3	5.07	14 06
17.35	3	20.9	5.23	7 31
15.83	7	21.0	5.24	18 37
16.03	7	21.4	5.35	14 13
14.34	7	21.6	5.40	6 57

25 prec. + $76^{\mathrm{s}}.8$, − 5′ 37″

8^h Area 100. Supplementary Stars − 0°

1s—20s				21s—40s				41s—60s				61s—80s				81s—100s			
Mag.	α 48^{m}	x	y−10′	Mag.	α 48^{m}	x	y−10′	Mag.	α 48^{m}	x	y−10′	Mag.	α 49^{m}	x	y−10′	Mag.	α 49^{m}	x	y−10′
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
15.19 7	8	87.1	13.2	16.88 2	22	90.6	13.6	16.81 2	46	96.5	2.6	17.05 2	4	1.0	2.6	16.27 4	23	5.8	15.4
16.93 2	10	87.4	16.3	16.61 2	24	91.0	21.4	15.56 7	46	96.6	22.4	16.53 2	4	1.1	23.4	15.34 6	23	5.8	11.6
13.38 10	11	87.8	18.9	16.19 2	26	91.6	21.8	17.36 2	47	96.6	20.6	13.86 9	6	1.6	20.4	16.93 2	24	6.0	22.0
15.30 7	11	87.8	14.6	15.61 7	32	92.9	4.4	15.63 6	47	96.8	20.9	16.26 4	9	2.2	20.5	17.01 2	24	6.1	20.6
16.45 2	11	87.8	12.2	16.02 6	32	93.0	20.4	16.37 4	48	96.9	20.8	16.82 2	9	2.3	21.8	17.23 2	25	6.2	21.4
12.83 13	12	88.0	18.5	14.83 8	33	93.2	4.6	16.82 2	49	97.2	23.2	15.57 6	9	2.3	20.6	17.07 2	25	6.2	20.3
16.26 2	13	88.3	13.0	17.27 2	34	93.5	22.4	16.93 2	49	97.2	3.6	15.59 7	10	2.4	22.4	15.83 7	26	6.4	20.0
14.82 8	14	88.5	20.2	16.47 2	34	93.6	3.4	16.08 6	49	97.3	5.0	15.41 7	10	2.5	22.1	16.47 2	26	6.4	18.7
15.54 7	14	88.6	9.9	15.74 6	35	93.8	20.2	14.43 10	51	97.8	21.8	14.92 8	10	2.6	4.1	15.61 7	27	6.8	21.2
15.88 6	15	88.7	15.1	15.75 7	37	94.2	24.4	16.17 4	53	98.2	4.6	16.49 2	10	2.6	3.8	14.27 11	28	7.0	21.0
17.25 2	15	88.8	17.1	16.08 6	38	94.4	21.2	15.29 7	53	98.4	24.3	17.03 2	13	3.2	3.6	14.54 9	28	7.0	19.2
15.39 7	15	88.8	14.2	15.11 7	39	94.7	20.9	17.01 2	58	99.4	3.1	14.23 10	14	3.4	20.0	16.73 2	28	7.0	19.0
16.76 2	16	89.1	13.0	17.05 2	41	95.2	24.0	14.22 11	58	99.5	23.2	16.21 2	15	3.8	21.9	16.21 4	29	7.2	11.4
17.37 2	19	89.8	18.7	15.91 6	41	95.2	20.2	13.85 9	58	99.5	4.5	16.43 2	16	4.1	4.3	16.93 2	31	7.8	19.7
17.29 2	20	89.9	22.3	15.88 6	42	95.5	23.9	16.98 2	59	99.6	25.6	15.00 8	17	4.2	4.4	14.22 10	34	8.4	17.5
15.23 7	20	90.0	6.3	17.03 2	43	95.8	3.4	17.37 2	59	99.6	21.0	13.88 10	17	4.3	21.8	16.83 2	34	8.4	10.7
12.85 14	20	90.1	16.6	16.39 2	44	96.1	4.0	16.97 2	60	99.9	23.8	17.18 2	20	5.0	21.1	15.70 7	35	8.7	16.0
14.86 8	21	90.3	11.4	17.07 2	45	96.2	4.9	17.10 2	62	0.6	3.8	15.81 6	22	5.6	20.4	14.71 8	36	9.0	13.6
16.08 6	21	90.3	10.4	16.24 2	45	96.2	3.2	16.99 2	63	0.7	22.2	17.46 2	23	5.6	18.4	16.93 2	37	9.3	14.2
17.19 2	22	90.5	7.7	15.44 7	46	96.4	20.5	17.07 2	63	0.8	25.6	17.25 2	23	5.8	21.4	16.68 2	39	9.7	15.9

25 prec. + $76^{s}.8$, − 5′ 37″

9^h Area 101. Center for 1900: 9^h 52^m 0° 0′ (20′ × 20′) + 0°, − 0°

1—30				31—60				61—90				91—120				121—150			
Mag.	α 50^{m}	x	y	Mag.	α 51^{m}	x	y	Mag.	α 51^{m}	x	y	Mag.	α 51^{m}	x	y	Mag.	α 51^{m}	x	y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
18.17 1	52.1	83.02	− 7 25	19.22 1	2.7	85.66	− 9 12	18.42 3	11.7	87.92	+ 6 56	17.24 5	22.2	90.54	+ 9 05	18.74 3	31.2	92.79	+ 5 01
16.66 7	52.1	83.03	+ 0 30	19.44 1	2.8	85.71	+ 7 03	19.59 1	11.7	87.92	+ 3 01	18.72 2	22.7	90.67	+ 4 38	18.21 3	31.2	92.80	− 1 19
19.37 1	52.3	83.08	− 4 35	17.07 5	3.1	85.78	− 2 13	12.37 13	11.8	87.96	+ 2 03	15.78 11	23.0	90.75	+ 4 31	17.84x 2	31.4	92.88	+ 7 02
18.15 3	52.8	83.19	− 2 47	18.92 1	3.7	85.93	− 8 54	15.64 11	11.8	87.96	− 3 29	18.52 3	23.0	90.76	+ 2 18	19.67 1	31.4	92.88	− 1 58
19.37 1	53.0	83.24	− 4 56	19.37 1	4.1	86.03	+ 9 51	13.91 14	13.8	88.44	+ 1 08	18.58 2	23.4	90.85	− 8 46	17.25 5	31.6	92.90	− 6 19
19.29 1	53.3	83.32	+ 7 51	18.99 1	4.4	86.11	− 7 20	19.52 1	13.8	88.46	+ 4 01	19.29 1	23.8	90.96	− 6 06	19.37 1	32.1	93.02	+ 9 26
19.44 1	53.5	83.37	+ 3 51	18.05 3	4.6	86.15	− 4 05	16.30 9	14.2	88.54	+ 6 08	19.44 1	24.6	91.14	− 7 48	**9.42w 8**	**32.2**	**93.04**	**+ 0 50**
18.69 1	53.7	83.42	− 8 18	19.37 1	4.8	86.21	− 6 00	18.80 2	15.4	88.84	− 7 19	18.88 2	24.6	91.14	− 2 54	19.22 1	32.4	93.10	+ 6 22
19.37 1	54.4	83.59	+ 7 14	19.07 1	4.9	86.22	+ 9 03	18.48 2	15.9	88.98	− 8 15	18.60 2	24.7	91.17	− 6 03	18.99 1	32.5	93.12	+ 2 53
19.07 1	54.6	83.66	+ 9 10	15.98 8	5.0	86.26	− 0 10	19.07 1	16.7	89.17	− 6 21	16.67 7	24.9	91.22	+ 0 40	19.44 1	32.9	93.22	+ 4 59
19.22 1	55.0	83.75	− 8 41	13.41 13	5.4	86.35	− 8 18	16.12 9	16.9	89.22	− 7 21	19.52 1	24.9	91.23	− 5 49	13.66 14	32.9	93.23	− 6 06
18.05 3	55.3	83.83	+ 6 50	19.52 1	5.6	86.36	− 4 15	19.59 1	18.2	89.54	− 2 29	18.64 2	25.4	91 36	− 5 10	18.46 3	33.1	93.28	− 6 52
18.48 2	56.0	84.01	− 3 05	16.59 5	6.8	86.70	− 1 36	19.22 1	18.2	89.55	+ 6 28	19.44 1	25.4	91.36	+ 7 44	16.65 9	33.4	93.35	+ 8 18
19.14 1	56.2	84.04	+ 8 27	19.44 1	7.0	86.76	+ 9 22	16.76 6	18.4	89.61	+ 0 03	17.60 5	25.9	91.47	+ 0 17	18.88 2	33.6	93.40	− 3 16
18.56 2	56.4	84.09	− 0 11	18.32 2	7.2	86.80	− 5 18	15.03 11	19.6	89.90	+ 7 27	19.22 1	26.1	91.52	− 3 13	18.92 1	33.8	93.46	+ 0 34
19.44 1	56.6	84.16	+ 4 00	17.18 5	7.4	86.84	− 4 04	19.67 1	19.8	89.94	+ 3 30	15.69 9	26.2	91.55	− 4 12	19.37 1	34.0	93.51	+ 6 42
17.44 1	57.4	84.35	+ 8 47	19.29 1	7.6	86.91	− 1 37	18.69x 1	20.0	90.00	+ 7 34	18.70 3	26.2	91.55	+ 3 40	18.54 1	34.2	93.55	+ 3 45
17.33 5	57.5	84.38	+ 7 29	16.75 7	7.7	86.92	− 7 31	18.81 2	20.0	90.02	− 0 02	18.77 1	26.5	91.62	− 9 40	17.79 3	36.5	94.12	− 7 37
19.22? 1	57.8	84.45	+ 6 31	14.23 11	7.9	86.97	+ 8 22	18.78 2	20.1	90.03	+ 3 22	18.74 2	26.7	91.67	+ 3 10	18.55 3	36.8	94.20	+ 3 45
17.80 1	57.9	84.48	− 7 18	19.52 1	8.8	87.19	− 4 11	13.93 13	20.2	90.06	− 7 14	18.55 2	27.0	91.75	+ 6 43	15.29w 9	37.0	94.24	− 0 13
17.70 3	58.0	84.50	− 1 11	14.19 12	9.0	87.24	− 8 04	15.07 10	20.3	90.07	− 8 25	18.92 1	27.1	91.78	+ 6 10	19.52 1	37.6	94.39	+ 7 49
19.44 1	59.8	84.96	+ 2 20	17.29 5	9.1	87.27	− 0 45	19.29 1	20.8	90.21	+ 7 53	19.83 1	27.3	91.82	+ 0 52	18.64 2	37.6	94.40	+ 9 51
15.39 10	59.8	84.96	+ 6 26	18.37 3	9.2	87.30	− 4 35	14.89 10	21.0	90.24	− 9 03	19.75 1	27.4	91.84	+ 1 33	15.52 9	38.2	94.54	− 6 15
18.99 1	60.7	85.18	+ 9 07	18.53 3	9.8	87.46	− 4 48	19.59 1	21.2	90.30	+ 6 26	19.52 1	27.5	91.88	+ 8 42	18.36 3	38.2	94.56	− 2 38
14.77 11	61.1	85.28	− 1 20	16.27 9	10.2	87.56	+ 8 08	19.75 1	21.3	90.32	+ 1 15	18.43 3	27.9	91.97	+ 9 01	18.82 3	38.3	94.57	− 0 40
15.34 11	61.2	85.29	+ 1 18	13.00 13	10.3	87.58	− 7 04	19.52 1	21.3	90.33	− 2 57	18.02d 1	29.0	92.25	− 0 52	17.20 6	38.9	94.73	+ 1 48
18.84 1	61.5	85.37	+ 9 23	15.33 11	10.7	87.67	− 0 24	19.52 1	21.4	90.34	+ 6 55	18.91 2	30.0	92.49	− 3 41	16.41 8	39.2	94.79	− 3 52
14.33 12	61.9	85.48	+ 2 40	19.59 1	11.0	87.76	− 1 27	19.59 1	21.6	90.40	− 1 20	19.44 1	30.4	92.61	+ 9 37	17.72 3	39.8	94.94	+ 9 21
17.51 3	62.5	85.62	+ 4 15	17.32 5	11.4	87.85	− 6 56	17.08 5	21.8	90.44	+ 7 05	18.31 3	30.6	92.65	− 3 42	18.55 3	40.5	95.13	+ 9 50
19.44 1	62.6	85.65	+ 7 45	17.20 5	11.5	87.87	− 7 11	18.25 3	22.0	90.51	+ 1 05	18.87 3	31.0	92.74	− 0 31	13.00 13	41.0	95.24	+ 6 57

25 prec. + $76^{s}.8$, − 7′ 4″

151—180				181—210				211—239				1s—16s			
Mag.	α 51^m	x	y	Mag.	α 51^m	x	y	Mag.	α 52^m	x	y	Mag.	α 50^m	x	y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
18.93 2	41.2	95.29	− 3 53	18.37 3	49.8	97.44	− 9 10	16.52 9	1.6	0.41	+ 5 07	10.55 8	50	82.4	+ 5.4
16.15 9	41.8	95.45	− 0 07	19.37 1	50.0	97.49	+ 0 25	19.37 1	1.9	0.47	+ 6 19	18.25 2	50	82.6	+ 0.6
14.89 9	42.2	95.56	+ 3 54	18.58 2	51.1	97.78	− 5 39	15.28 11	2.2	0.54	+ 6 53	15.36 8	76	89.0	+11.8
16.13 9	42.4	95.60	+ 9 32	19.44 1	51.2	97.79	− 4 34	13.50 15	2.8	0.70	− 0 53	17.25 2	91	92.7	+11.4
19.52 1	42.4	95.60	− 5 21	19.14 1	51.8	97.94	+ 7 11	19.29 1	3.0	0.75	+ 9 19	16.53 7	95	93.8	−10.2
19.29 1	42.6	95.64	− 5 26	16.36 8	51.8	97.94	+ 2 46	16.16 9	3.2	0.81	− 2 07	17.89 2	96	94.0	+11.9
19.59 1	43.3	95.83	+ 5 04	19.44 1	52.3	98.08	+ 7 58	18.00 3	4.1	1.03	+ 8 56	16.19 7	98	94.6	+10.2
17.41 3	43.8	95.94	+ 8 27	19.44 1	52.8	98.19	+ 1 20	18.70 2	4.3	1.07	− 1 16	16.92 5	111	97.8	+10.9
17.31 6	43.9	95.98	− 9 23	13.59 14	52.9	98.23	− 3 59	17.33 3	4.3	1.07	+ 2 50	17.51 2	116	99.1	+10.3
16.57 7	44.7	96.18	− 4 33	19.44 1	53.0	98.24	− 4 22	18.40x 3	4.4	1.09	+ 2 37	14.21 11	132	3.1	− 1.2
14.89 10	45.4	96.36	+ 4 26	19.52 1	53.2	98.31	+ 1 10	18.09x 3	4.9	1.23	+ 3 07	18.44 2	133	3.2	+ 1.4
17.84 3	45.5	96.37	− 6 36	19.44 1	53.5	98.38	− 4 36	18.42 3	5.3	1.33	+ 2 18	17.41 2	133	3.2	+ 3.4
18.76 2	45.9	96.47	+ 0 01	18.44 2	53.7	98.43	+ 5 08	15.40 10	5.3	1.33	− 3 47	14.78 9	134	3.4	− 3.7
16.04 8	46.3	96.58	− 0 18	19.52 1	54.1	98.52	+ 3 50	17.97 3	5.7	1.43	+ 0 49	18.03 2	135	3.7	+ 3.7
18.48 3	46.4	96.59	+ 8 02	18.19 3	54.6	98.65	− 4 36	19.37 1	6.5	1.63	+ 7 26	17.10 4	136	3.9	+ 3.7
19.37 1	46.5	96.62	+ 9 26	19.37 1	55.2	98.80	− 7 04	17.57 3	7.2	1.81	+ 5 36	17.11 4	136	4.1	− 2.1
19.14 1	46.5	96.63	− 4 59	16.29 9	55.8	98.95	+ 3 49	18.17 1	7.5	1.87	+ 9 57				
16.59 6	46.6	96.64	− 9 59	18.35 3	55.8	98.95	− 7 22	17.87 3	8.1	2.03	− 1 34				
17.38 5	46.8	96.70	+ 2 05	15.18 11	56.0	99.00	− 6 16	18.35 3	8.7	2.18	+ 3 35				
19.44 1	47.0	96.76	− 6 09	17.74 3	57.5	99.38	− 6 41	19.37 1	8.9	2.22	− 3 52				
19.52x 1	47.4	96.84	− 3 30	18.52 3	57.6	99.40	+ 6 31	18.77 1	9.5	2.37	+ 7 25				
16.08 8	47.6	96.91	− 1 06	12.23 13	57.8	99.44	− 3 07	18.40 2	9.5	2.38	− 2 49				
15.95 8	48.1	97.03	− 1 53	10.35w 8	58.6	99.64	− 1 28	17.10 5	10.1	2.53	+ 1 42				
17.24 5	48.2	97.04	+ 6 04	19.44 1	58.6	99.64	+ 0 31	18.17 1	10.7	2.68	− 6 43				
18.66 2	48.2	97.06	+ 5 54	16.34 1	58.8	99.71	− 9 57	14.30 1	10.8	2.71	+ 7 34				
18.69 1	48.6	97.15	+ 5 37	18.49 2	59.2	99.81	− 6 16	15.08 11	11.5	2.87	+ 3 33				
17.17 6	48.8	97.19	+ 6 55	19.37 1	59.5	99.88	− 5 29	19.22 1	11.6	2.91	− 6 38				
18.73 3	48.9	97.23	+ 4 54	19.37 1	60.1	0.03	− 5 30	18.21x 2	11.8	2.94	+ 0 19				
17.64 3	49.4	97.34	− 9 03	16.64 8	60.8	0.21	− 2 52	17.36 1	11.8	2.95	+ 9 41				
19.52 1	49.5	97.38	− 1 54	19.29 1	61.3	0.33	+ 7 09								

25 prec. + $76^{s}.8$, − 7′ 4″

10^h

Area 102. Center for 1900: 10^h 50^m − 0° 20′ (20′ × 20′)

− 0°

1—20				21—40				41—60				61—80				81—100			
Mag.	α 49^m	x	$y-20'$	Mag.	α 49^m	x	$y-20'$	Mag.	α 49^m	x	$y-20'$	Mag.	α 50^m	x	$y-20'$	Mag.	α 50^m	x	$y-20'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.74 3	36.1	94.03	20 32	16.10 6	48.0	96.99	21 16	11.05w 11	58.7	99.67	16 22	17.80 3	10.0	2.49	16 24	18.07 3	22.2	5.55	23 04
17.28 1	36.6	94.14	24 54	17.49 3	50.1	97.53	13 56	18.03 3	59.4	99.86	17 46	18.30 3	10.3	2.57	12 45	16.32 8	22.3	5.57	12 04
15.52 2	37.6	94.39	24 27	16.41 4	50.3	97.57	20 54	18.03 3	60.7	0.18	24 45	17.53 1	11.0	2.76	29 37	14.46 12	22.7	5.67	23 08
15.17 9	38.1	94.52	11 56	18.09 3	50.3	97.58	14 41	17.62 3	61.0	0.25	14 02	16.55 5	12.8	3.20	23 25	15.15 10	24.2	6.04	22 02
17.58 3	38.1	94.52	14 28	16.25 7	51.0	97.76	14 46	16.68 4	61.9	0.47	13 22	16.85* 1	13.4	3.34	24 38	18.22 2	24.6	6.15	19 31
13.66 11	39.3	94.83	11 14	17.95 3	51.2	97.79	23 58	17.47 1	62.2	0.55	28 16	18.14 1	14.4	3.60	10 11	17.82 3	25.0	6.24	25 43
17.64 3	40.0	95.00	17 13	16.26 6	51.9	97.98	14 35	17.16 3	62.2	0.56	24 31	17.43 3	14.8	3.69	23 32	18.39 1	25.4	6.35	17 04
17.86 3	40.5	95.12	16 48	17.71 1	52.0	98.01	18 58	13.51 12	62.6	0.64	12 18	17.24 3	15.0	3.76	27 06	18.22 2	26.0	6.49	14 20
12.71w 11	40.5	95.12	19 55	17.99 3	52.8	98.19	24 36	18.01 3	63.6	0.91	26 02	18.18 3	15.2	3.81	13 13	16.31 9	26.4	6.59	15 37
17.96 1	42.3	95.58	26 44	16.30 5	52.8	98.21	12 11	16.12 9	63.9	0.98	21 59	17.60 3	15.6	3.90	20 12	16.43 5	28.2	7.05	26 32
9.54w 8	43.4	95.85	23 08	17.59d 1	52.8	98.21	25 41	17.83 3	65.5	1.37	16 37	18.27 1	16.0	4.00	11 38	16.28 7	30.8	7.69	10 30
14.75 9	43.6	95.89	20 55	17.98 3	53.7	98.43	13 59	18.16 2	66.7	1.67	16 45	9.12w 8	18.0	4.50	16 48	17.92 3	31.4	7.85	23 01
17.96 1	43.8	95.94	26 59	17.83 3	54.2	98.56	24 02	18.02 1	67.8	1.95	17 17	16.92 5	19.9	4.97	18 38	17.53 1	31.6	7.90	29 55
18.02 1	43.9	95.98	26 37	18.24 3	54.8	98.70	14 45	17.78x 3	68.2	2.06	24 11	18.21 1	20.0	5.01	18 21	18.03 3	32.9	8.23	23 30
17.99 3	44.1	96.03	18 20	18.02 1	54.8	98.71	27 41	18.21 1	68.2	2.06	10 30	14.99 10	20.2	5.04	12 44	15.93 8	33.0	8.25	27 33
18.05 3	45.0	96.25	17 52	13.72 10	55.3	98.83	20 35	14.42 10	68.4	2.11	17 00	17.67 3	20.9	5.23	15 31	17.78 3	33.8	8.44	10 18
17.41 1	45.5	96.38	26 15	18.04 3	55.8	98.96	15 31	15.74 9	68.8	2.19	21 48	16.68 5	21.6	5.39	15 15	15.25 10	33.8	8.46	12 57
16.50 4	45.8	96.45	21 39	14.78 9	56.3	99.07	26 53	17.87 3	68.8	2.19	27 00	17.57 3	21.8	5.45	27 03	15.89 9	34.1	8.52	13 32
16.48 4	46.3	96.58	22 36	15.69 7	57.8	99.45	24 51	18.16x 3	68.9	2.22	24 39	16.02 10	21.8	5.45	11 53	14.36 11	34.2	8.54	15 59
17.99 3	47.8	96.96	16 47	17.88 3	58.6	99.66	15 49	18.02x 1	68.9	2.23	23 43	17.20 2	22.2	5.55	17 02	12.89h 1	34.6	8.64	29 20

25 prec. + $76^{s}.8$, − 7′ 58″

101—115			
Mag.	α 50^{m}	x	y−20′
	s	′	′ ″
18.20 3	34.8	8.69	13 11
16.97 3	36.2	9.04	20 13
17.42 3	36.6	9.16	12 38
18.27 1	37.0	9.24	16 00
16.70 4	37.1	9.27	15 34
16.16 8	39.0	9.74	20 44
16.09 6	39.4	9.85	25 00
13.23 14	39.6	9.90	20 35
16.00 6	39.7	9.92	25 38
16.60 1	41.1	10.28	27 56
18.12 3	41.3	10.32	19 17
16.20 8	41.7	10.42	14 16
17.34x 1	42.6	10.65	28 24
13.22 11	43.4	10.85	22 20
14.15 10	43.8	10.94	15 08

116—130			
Mag.	α 50^{m}	x	y−20′
	s	′	′ ″
13.72 10	44.4	11.10	15 28
14.85 11	44.5	11.13	12 18
15.00 10	45.0	11.25	20 07
17.81 3	45.3	11.32	25 30
18.25 3	45.8	11.45	18 56
17.96 3	46.5	11.62	15 35
17.23 3	46.8	11.69	10 05
15.70 1	47.4	11.84	28 22
17.59d 1	48.3	12.08	10 16
17.90 3	48.7	12.18	18 26
18.18 2	49.4	12.35	10 51
17.48 3	49.5	12.38	19 38
14.75 10	49.7	12.42	14 11
18.08 1	49.8	12.45	11 07
18.08 3	50.0	12.51	19 56

131—139			
Mag.	α 50^{m}	x	y−20′
	s	′	′ ″
16.42 5	50.5	12.63	19 36
9.42h 1	50.5	12.63	28 10
15.95 8	51.4	12.84	24 39
15.95 8	52.8	13.19	22 30
17.53x 1	53.0	13.26	25 18
17.88 3	53.7	13.43	21 29
15.95 1	54.7	13.68	25 18
18.02 1	55.4	13.84	13 22
16.33 5	55.9	13.94	22 57

1s—15s			
Mag.	α 49^{m}	x	y−20′
	s	′	′
15.80 7	34	93.4	15.6
17.45 2	34	93.4	15.0
15.73 6	35	93.8	19.3
16.69 2	43	95.8	9.2
17.69 2	45	96.3	9.8
17.76 2	49	97.2	8.1
16.20 3	49	97.3	8.6
15.95 7	50	97.4	8.2
17.01 2	50	97.6	9.0
16.37 4	53	98.2	9.8
14.55 9	56	98.9	9.8
14.69 8	59	99.7	9.4
18.13 2	61	0.3	9.4
17.37 2	69	2.2	7.4
16.37 4	76	4.1	9.3

16s—27s			
Mag.	α 50^{m}	x	y−20′
	s	′	′
17.17 2	21	5.2	9.8
17.83 2	25	6.2	5.6
17.79 2	28	7.0	6.1
15.91 6	28	7.1	9.5
14.93 6	33	8.2	9.0
17.83 2	40	10.0	8.1
17.83 2	56	14.1	21.6
14.51 9	56	14.1	10.0
17.37 2	58	14.4	16.3
17.11 2	61	15.3	17.0
17.57 2	62	15.6	14.7
15.90 7	63	15.8	17.1

25 prec. + $76^{s}.8$, − 7′ 58″

11^{h} Area 103. Center for 1900: 11^{h} 50^{m} 0° 0′ (20′ × 20′) + 0°, − 0°

1—35			
Mag.	α 49^{m}	x	y
	s	′	′ ″
17.84 1	12.1	88.02	+ 7 26
18.38 1	12.9	88.22	− 8 55
15.38 9	14.2	88.54	− 3 49
15.15 1	14.2	88.55	− 9 00
16.96 1	14.6	88.66	− 9 28
18.17 1	15.0	88.74	+ 8 27
16.54 7	15.5	88.87	+ 2 22
16.32 7	15.9	88.98	+ 4 56
18.44 1	16.3	89.07	− 5 58
18.44 1	16.3	89.08	+ 7 55
17.14 1	16.8	89.21	− 8 59
18.38 1	17.0	89.24	− 7 03
17.45 3	18.6	89.65	+ 5 00
18.57 1	20.8	90.21	+ 0 20
18.17 1	22.1	90.52	− 6 58
17.88 3	22.2	90.54	− 5 49
16.92 6	22.3	90.58	+ 5 55
16.92 5	23.5	90.88	+ 0 57
16.78 6	23.7	90.92	+ 6 33
12.76w 11	24.6	91.14	− 2 13
16.87 7	24.8	91.21	− 0 10
17.36 3	25.0	91.26	+ 3 16
17.45 3	25.4	91.36	− 7 13
14.19 11	26.9	91.72	+ 8 26
14.91 10	27.6	91.90	+ 5 34
17.12 3	28.9	92.23	+ 2 52
18.38 1	29.0	92.25	+ 8 24
16.67 7	29.0	92.26	− 4 16
18.17 1	29.5	92.37	+ 5 19
18.57 1	29.6	92.39	+ 5 30
18.31 1	30.0	92.51	+ 3 58
14.29 11	31.4	92.84	+ 6 58
17.02 7	31.4	92.86	− 2 15
18.52 3	32.2	93.05	− 6 12
16.14 10	32.2	93.05	− 1 04

36—70			
Mag.	α 49^{m}	x	y
	s	′	′ ″
17.01 6	32.2	93.06	+ 5 48
18.57 1	33.3	93.32	+ 5 33
17.88 3	34.2	93.56	− 1 50
17.28 5	34.6	93.65	+ 4 09
15.16 11	35.0	93.76	+ 4 29
18.07 3	35.2	93.81	+ 3 29
17.64 3	35.2	93.81	+ 4 15
18.57 1	35.4	93.85	− 5 28
11.10w 12	35.7	93.92	+ 9 02
18.54 3	35.8	93.94	− 6 59
18.64 1	35.8	93.95	+ 3 25
16.36 9	37.4	94.34	− 3 45
15.98 10	37.4	94.35	+ 8 49
18.39 3	38.6	94.65	− 8 05
18.57 1	38.6	94.66	+ 7 02
15.44 9	39.8	94.94	− 5 52
17.55 3	40.3	95.07	+ 4 25
15.43 8	41.4	95.35	− 4 39
17.83 3	42.5	95.64	+ 7 07
14.75 11	42.6	95.65	− 8 53
18.85 1	43.5	95.87	+ 0 05
18.66 3	43.7	95.93	− 5 48
18.05 3	43.8	95.96	+ 4 08
16.99 7	44.6	96.14	+ 5 59
18.22 3	45.6	96.41	+ 1 51
18.71 1	48.3	97.07	+ 4 00
18.10 3	48.4	97.11	+ 1 18
18.78 1	49.8	97.45	− 1 59
17.98 3	49.8	97.45	− 2 39
15.98 10	50.0	97.50	+ 8 36
17.91 3	50.4	97.61	+ 8 06
14.54 9	50.6	97.65	+ 9 09
15.04 10	51.7	97.93	+ 4 15
18.30 2	52.2	98.04	− 3 33
15.97 10	52.6	98.16	+ 2 10

71—105			
Mag.	α 49^{m}	x	y
	s	′	′ ″
8.94w 7	53.6	98.41	0 00
18.44 1	54.4	98.60	+ 9 22
17.29 7	55.2	98.80	− 4 13
18.54 3	55.5	98.88	− 8 06
18.38 1	56.2	99.05	− 1 27
18.44 1	56.4	99.10	+ 9 07
18.51 3	56.6	99.14	− 8 24
14.44 12	56.8	99.20	− 7 34
16.81 8	57.1	99.27	− 3 57
18.40 2	57.6	99.39	− 2 00
18.50 1	57.7	99.43	− 1 45
17.49 3	58.0	99.51	− 6 39
17.83 3	58.2	99.55	− 2 19
18.71 1	58.4	99.60	− 1 32
18.25 3	58.5	99.62	+ 5 45
17.11 7	58.5	99.63	+ 2 44
18.03 3	58.8	99.70	− 7 57
16.93 6	59.6	99.90	+ 8 56
18.64 1	59.8	99.95	+ 3 45
17.08 7	61.4	0.35	+ 5 17
18.62 2	61.5	0.37	− 0 05
16.94 7	61.6	0.39	+ 1 57
14.35 11	62.2	0.56	+ 4 34
12.43w 13	64.2	1.04	+ 9 46
16.76 9	64.8	1.19	− 1 11
18.64 1	65.3	1.32	+ 0 58
18.74 3	65.6	1.39	+ 2 22
18.05 3	66.1	1.52	+ 5 47
18.44 1	66.2	1.55	− 2 22
18.54 2	66.3	1.58	+ 1 47
14.62 13	67.1	1.78	− 5 07
16.78 6	67.2	1.81	+ 4 22
18.52 2	68.4	2.09	− 1 10
15.57 10	68.6	2.15	+ 6 19
18.29 2	69.0	2.26	+ 3 01

106—139			
Mag.	α 50^{m}	x	y
	s	′	′ ″
16.87 7	9.9	2.47	− 7 15
18.44 1	10.0	2.50	− 8 49
18.57 1	10.8	2.69	+ 4 40
16.95 7	11.0	2.74	+ 5 52
18.36 2	11.9	2.97	− 2 00
16.98 6	12.8	3.19	0 00
18.06 3	14.6	3.65	+ 1 25
16.92 3	15.1	3.77	− 6 05
15.05 7	15.4	3.85	+ 8 51
17.80 3	15.7	3.93	− 2 25
14.92 9	16.3	4.07	− 0 47
16.65 6	16.8	4.20	+ 9 49
17.89 3	18.0	4.49	+ 6 18
18.32 2	18.3	4.57	− 1 52
18.38 1	18.8	4.71	− 8 40
16.99 3	21.2	5.31	− 7 58
16.32 7	22.6	5.64	+ 4 10
17.62 3	22.6	5.66	+ 7 23
16.77 6	22.8	5.69	+ 7 33
18.20 3	23.2	5.79	+ 0 21
16.83 6	23.3	5.83	− 5 00
16.26 7	23.7	5.92	− 5 06
13.01 15	26.2	6.54	− 5 32
18.44 1	26.5	6.63	+ 2 33
16.71 7	27.0	6.76	− 2 38
18.44 1	27.1	6.78	+ 2 23
18.08 3	27.6	6.89	+ 1 57
13.03 15	27.8	6.96	− 7 40
15.06 10	28.0	7.00	+ 2 38
18.25 3	29.0	7.24	− 3 50
18.38 1	29.6	7.40	+ 6 22
18.44 1	30.2	7.55	+ 1 04
16.43 8	31.0	7.74	+ 5 51
17.78 1	31.7	7.93	− 9 18

1s—7s			
Mag.	α 49^{m}	x	y
	s	′	′
14.96 9	41	95.2	−10.4
15.91 7	51	97.8	−11.4
16.88 6	57	99.2	+10.0
13.93 12	68	2.0	−10.4
16.70 6	93	8.4	− 2.8
17.50 2	97	9.2	+ 1.6
18.39 2	98	9.5	− 0.8

25 prec. + $76^{s}.8$, − 8′ 21″

Area 104. Center for 1900: $12^h\ 38^m$ 0° 0′ (20′ × 20′)

+ 0°, − 0°

1—30				31—60				61—90				91—110				1s—10s			
Mag.	α 37^m	x	y	Mag.	α 37^m	x	y	Mag.	α 38^m	x	y	Mag.	α 38^m	x	y	Mag.	α 37^m	x	y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
16.93 3	22.6	90.64	+ 4 39	16.41 7	46.8	96.70	+ 4 04	17.47 3	10.8	2.71	− 1 42	17.90 3	28.4	7.11	+ 6 54	13.76 12	12	88.1	+ 0.4
16.11 7	22.9	90.72	− 5 38	15.40 10	48.2	97.04	+ 3 27	14.95 10	11.4	2.84	− 5 40	16.05 7	28.5	7.13	− 7 30	12.19 9	13	88.3	− 0.4
17.68 1	23.4	90.84	− 9 29	18.48 2	50.6	97.66	− 4 17	12.81w11	12.8	3.19	− 9 54	15.62 7	31.3	7.83	+ 0 52	16.84 5	16	88.9	+ 4.8
14.26 10	23.4	90.84	+ 0 27	16.76 6	52.2	98.05	− 0 20	16.02 7	13.4	3.35	+ 9 18	18.06x 2	32.2	8 04	+ 3 44	16.82 3	17	89.2	− 2.4
17.09 1	25.2	91.29	− 8 56	17.22 3	54.0	98.50	+ 2 21	15.12 8	13.4	3.36	+ 2 51	16.70 6	32.5	8.12	− 4 02	12.09 9	20	89.9	− 1.4
15.93 1	25.9	91.48	− 8 46	17.32 2	55.6	98.89	+ 2 59	16.39 7	13.7	3.42	+ 5 46	16.88 3	33.3	8.32	+ 8 21	15.75 6	40	94.9	+10.6
17.44 2	26.2	91.55	− 1 43	17.98 2	55.7	98.92	− 4 59	17.59 3	13.9	3.47	− 1 45	17.34 1	34.3	8.57	− 7 34	17.94 2	63	0.8	+11.4
15.27 10	26.4	91.61	+ 4 18	16.44 6	55.8	98.94	− 2 50	17.00 3	14.0	3.52	− 5 44	15.76 1	35.0	8.75	− 8 26	17.95 2	73	3.2	+10.6
16.23 6	29.1	92.27	− 3 33	17.08 6	55.8	98.96	+ 1 13	14.91 8	15.0	3.75	+ 2 58	17.16 3	35.5	8.87	+ 8 20	17.92 2	101	10.2	− 2.0
17.73 3	29.3	92.32	+ 2 29	14.00 12	56.2	99.05	+ 4 32	15.58 10	15.1	3.77	− 2 45	16.99 3	36.5	9.12	+ 5 28	17.11x 4	104	10.9	− 0.8
12.68 1	29.9	92.47	+ 9 45	10.89w 5	58.7	99.68	+ 0 33	17.90 2	15.7	3.93	+ 6 50	16.93 1	36.7	9.18	+ 9 26				
17.26 1	30.4	92.60	− 8 47	18.44 2	58.8	99.69	+ 7 22	17.56 2	16.0	4.01	+ 7 43	17.88 3	37.3	9.33	+ 1 45				
16.39 7	30.8	92.69	− 1 36	16.80 3	59.0	99.75	+ 7 06	17.88 2	16.5	4.12	+ 6 48	17.86 3	37.4	9.36	− 0 26				
16.97 3	31.1	92.77	+ 4 28	16.80x 4	59.1	99.77	+ 6 34	18.23 2	17.1	4.27	+ 6 43	15.71 8	38.1	9.52	− 3 52				
17.15 5	31.9	92.97	+ 1 50	14.56 9	60.0	0.00	− 7 32	17.97 3	17.4	4.36	− 7 29	14.96 9	38.1	9.53	+ 5 22				
17.55 3	32.6	93.15	+ 9 29	16.40 7	60.4	0.10	+ 8 38	16.55 6	17.9	4.48	+ 3 14	17.42 3	38.5	9.63	+ 1 57				
16.95 4	32.8	93.20	− 0 07	15.98 8	61.4	0.36	− 2 00	17.83 2	18.8	4.71	+ 6 31	16.09 7	38.5	9.63	− 1 39				
17.77 1	35.9	93.98	− 9 08	18.20 3	63.4	0.84	− 3 49	17.78 3	18.9	4.72	− 3 59	17.77 1	38.9	9.72	+ 7 23				
17.08 4	37.6	94.41	+ 2 30	17.72 2	63.8	0.94	− 6 12	17.83 3	19.1	4.78	− 6 03	17.85 1	39.5	9.87	+ 0 26				
12.76w13	37.7	94.42	+ 7 22	17.42 2	63.8	0.95	− 8 29	15.74 5	19.7	4.92	− 7 38	14.57 11	39.7	9.92	− 4 16				
18.07 3	37.8	94.44	− 1 42	17.17 3	64.3	1.07	+ 6 21	15.76 1	22.1	5.53	− 9 27								
17.57 3	39.8	94.95	− 3 38	14.17 10	65.0	1.25	− 9 36	16.69 4	24.5	6.12	− 4 12								
16.71 6	40.2	95.04	− 3 22	16.18 7	66.4	1.62	+ 5 07	17.10 3	24.5	6.14	+ 5 10								
17.24 3	40.2	95.06	+ 4 18	14.09 11	66.7	1.68	− 0 28	18.33 2	25.2	6.30	+ 2 03								
15.75 8	40.6	95.14	− 3 32	16.88 4	67.0	1.75	− 7 52	14.73 9	26.1	6.53	+ 6 06								
17.22 5	44.2	96.05	+ 1 48	18.08 2	68.5	2.12	− 9 27	16.86 3	26.8	6.71	− 5 51								
12.51 14	44.6	96.15	+ 7 03	16.94 4	68.6	2.15	− 7 44	17.96 2	27.0	6.75	+ 7 42								
15.22 10	44.8	96.19	+ 8 35	17.40 2	68.9	2.23	− 4 01	17.41 3	27.7	6.92	− 5 32								
17.05 3	45.0	96.26	− 4 24	16.15 7	68.9	2.23	+ 2 16	16.72 4	28.2	7.04	− 6 12								
12.80 11	46.4	96.60	+ 0 48	17.26x 1	70.3	2.58	− 5 46	17.90 3	28.4	7.10	− 5 46								

25 prec. + $76^s.8$, − 8′ 14″

13^h

Area 105. Center for 1900: $13^h\ 33^m$ − 0° 10′ (20′ × 20′)

+ 0°, − 0°

1—20				21—40				41—60				61—80				81—100			
Mag.	α 32^m	x	$y-10'$	Mag.	α 32^m	x	$y-10'$	Mag.	α 32^m	x	$y-10'$	Mag.	α 32^m	x	$y-10'$	Mag.	α 32^m	x	$y-10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
12.45w11	0.6	85.14	− 3 35	17.27 1	11.0	87.76	+ 4 39	15.19 9	19.2	89.80	−11 43	16.02 7	29.8	92.44	−14 41	16.41 7	39.9	94.98	− 6 15
16.14 6	2.1	85.52	−11 29	17.07 3	11.4	87.85	− 4 55	16.31 7	19.5	89.88	− 3 45	18.28 2	30.0	92.51	+ 0 36	17.25 4	40.0	94.99	− 3 57
17.64 1	2.7	85.68	+ 3 53	13.90w 9	11.7	87.93	− 9 39	18.39 2	20.3	90.07	− 8 43	16.68 6	30.4	92.60	− 4 31	18.43 3	40.0	95.00	− 4 10
18.32 3	3.4	85.85	− 8 43	17.90 1	13.1	88.28	+ 3 24	16.58 7	21.7	90.42	− 7 31	14.54w 9	31.2	92.81	+ 2 35	16.85 4	41.2	95.30	−14 20
18.07 3	3.4	85.85	− 2 50	17.75 3	13.9	88.47	− 3 19	18.52 2	21.7	90.42	− 5 01	18.16 3	32.0	93.01	+ 2 08	18.41 3	41.3	95.32	− 4 16
16.35 7	4.8	86.21	− 4 29	15.02 10	14.0	88.51	− 6 31	16.61 7	22.7	90.67	− 9 05	15.06 9	32.4	93.09	+ 3 05	18.00 2	41.6	95.40	−14 20
15.52 9	5.0	86.24	− 7 42	16.70 7	14.2	88.54	− 2 55	18.30 3	24.3	91.07	− 6 00	18.41 2	32.4	93.09	− 0 51	13.90w10	42.6	95.66	− 9 23
17.63 3	5.0	86.26	− 8 50	18.25 1	14.6	88.64	+ 3 41	17.53 3	25.1	91.27	−13 00	18.67 3	32.6	93.16	− 9 43	16.18 7	42.8	95.69	−12 26
16.88 1	5.1	86.28	+ 4 26	18.38 2	14.7	88.68	−14 17	16.67 5	25.9	91.48	+ 3 21	17.64 1	32.7	93.17	+ 4 46	18.64? 1	46.2	96.55	−11 06
18.03 3	5.3	86.31	− 0 15	18.14 3	15.5	88.87	− 3 38	18.15 3	26.0	91.49	−14 26	14.29 9	32.7	93.17	− 3 22	17.48 3	46.7	96.68	− 3 46
16.64 1	5.7	86.43	+ 2 04	18.01 3	15.7	88.92	− 4 56	17.75 3	26.0	91.51	− 1 49	16.65 6	33.2	93.29	+ 2 17	14.89 9	46.9	96.73	+ 2 30
15.57 6	6.4	86.59	−11 16	17.69 3	16.2	89.06	−11 07	15.29 9	26.1	91.53	−11 07	18.37 3	33.4	93.34	− 3 56	18.60 2	47.7	96.90	− 7 36
18.07 3	6.8	86.70	− 0 36	17.13 4	16.5	89.13	+ 1 36	17.01 4	26.2	91.54	+ 3 59	13.58w10	33.9	93.47	− 6 17	17.92 3	48.1	97.03	− 3 28
17.93 3	7.1	86.77	− 9 35	18.50 2	17.5	89.38	− 9 00	14.75 10	26.3	91.57	−10 56	17.32 3	34.4	93.61	− 6 09	18.46 3	49.6	97.40	− 6 50
18.02 2	8.1	87.03	− 0 22	17.37 3	17.6	89.40	− 4 19	16.17 7	26.3	91.57	−10 36	16.84 6	36.0	94.01	− 5 47	17.84 2	50.4	97.61	+ 2 31
12.10w12	8.5	87.13	− 8 49	17.21 1	17.9	89.48	+ 4 27	16.41 6	27.4	91.86	− 9 35	18.07 3	37.8	94.45	− 3 46	18.41 3	50.6	97.66	− 4 42
12.62w10	9.2	87.29	− 7 19	18.30 3	17.9	89.48	− 8 03	18.07 3	27.8	91.94	+ 2 50	17.19 4	38.4	94.60	− 4 20	17.95 3	50.7	97.68	− 4 48
15.57 7	9.6	87.41	− 1 07	18.28 2	18.1	89.52	−11 12	17.68 3	28.5	92.12	− 5 22	16.99 4	39.3	94.82	− 0 43	18.32 3	51.2	97.80	−14 58
18.16 3	9.8	87.45	− 7 50	18.28 2	18.4	89.59	+ 1 05	17.60 3	29.0	92.24	− 9 52	18.48 3	39.5	94.88	− 4 42	14.96 9	52.6	98.15	+ 0 04
17.67 3	9.9	87.48	−13 53	18.19 3	19.1	89.77	− 6 59	16.70 6	29.0	92.24	− 9 14	9.68w 4	39.5	94.88	− 6 57	14.42 10	53.4	98.35	− 0 12

25 prec. + $76^s.8$, − 7′ 41″

13^{h} Area 105 + 0°, − 0°

101—120				121—140				141—160				1s—15s			
Mag.	α 32^{m}	x	y−10′	Mag.	α 33^{m}	x	y−10′	Mag.	α 33^{m}	x	y−10′	Mag.	α 31^{m}	x	y−10′
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
18.41 1	54.2	98.54	+ 1 57	17.34 3	1.4	0.34	+ 1 31	16.82 4	10.9	2.72	− 3 54	17.81 2	55	83.8	− 8.5
11.66w12	54.4	98.59	+ 1 17	18.04 1	1.8	0.44	+ 2 44	17.86 3	11.0	2.72	− 6 47	17.55 2	58	84.4	− 9.9
17.66 3	54.9	98.73	− 3 50	15.76 7	2.0	0.49	− 1 31	15.10 9	11.6	2.89	− 5 42	17.04 3	59	84.6	− 8.6
15.99 7	55.6	98.90	− 0 31	16.53 7	3.8	0.95	−14 54	18.02 3	11.9	2.98	− 7 05	16.99 2	58	84.6	− 2.0
14.42 10	55.8	98.96	− 4 11	17.70 3	4.4	1.09	− 4 18	18.32 2	13.1	3.27	−10 13	14.41 8	69	87.3	−15.3
17.83 3	56.4	99.09	+ 3 03	18.23 2	4.8	1.19	+ 0 13	16.20 1	13.9	3.48	+ 4 29	17.89 2	72	88.1	−15.6
18.56 1	56.5	99.13	− 1 14	10.47w 9	4.9	1.21	− 5 04	18.13 3	14.3	3.57	− 4 17	15.61 6	77	89.2	−16.5
18.13 3	57.4	99.35	+ 0 15	17.58 1	5.2	1.30	+ 4 49	18.28 2	15.1	3.78	− 4 44	17.91 2	86	91.4	−15.9
17.84 3	57.7	99.42	−14 49	17.80 3	5.2	1.30	− 1 42	17.78 1	15.5	3.88	− 2 55	17.51 2	102	95.5	−18.1
16.09 7	58.2	99.54	−10 56	18.25 1	5.8	1.45	− 3 48	17.71 1	15.5	3.88	+ 0 42	16.46 6	104	96.0	−17.3
17.78 1	58.6	99.64	+ 4 01	18.72 2	5.8	1.45	− 6 38	16.74 5	15.8	3.96	− 4 33	15.97 6	108	96.9	−16.1
17.24 4	58.8	99.68	− 5 14	15.07 10	5.8	1.46	− 6 22	14.65 10	16.1	4.03	− 6 52	17.21 2	108	97.1	−16.3
13.96w10	59.7	99.92	−14 22	17.10 4	6.7	1.68	−10 27	13.88w10	16.3	4.08	− 6 33	16.64 6	110	97.5	−15.1
18.39 3	60.0	99.99	− 4 52	17.27 1	7.2	1.79	+ 3 25	17.42 4	17.0	4.24	−11 45	14.80 7	111	97.8	−17.1
16.54 6	60.1	0.02	− 8 15	17.04 1	7.4	1.84	+ 2 43	16.43 7	17.0	4.25	−10 20	16.57 4	117	99.2	−15.2
18.00 3	60.4	0.11	+ 2 23	16.81 4	8.2	2.04	−10 35	14.28 10	17.1	4.27	− 2 53				
18.72 2	60.6	0.14	−10 39	17.04 1	9.7	2.42	+ 3 47	17.64 1	18.2	4.54	−13 25				
18.56 1	60.8	0.19	−11 02	17.06 4	9.9	2.48	− 5 23	17.97 1	18.2	4.54	−14 39				
16.87 5	61.2	0.29	− 5 53	18.13 3	10.2	2.55	− 8 07	14.42 10	18.5	4.63	− 5 16				
17.20 4	61.4	0.34	−11 59	15.47 9	10.8	2.71	− 2 57	17.78 1	19.9	4.98	+ 3 09				

25 prec. + $76^{\mathrm{s}}.8$, − 7′ 41″

14^{h} Area 106. Center for 1900: 14^{h} 37^{m} 0° 0′ (20′ × 20′) + 0°, − 0°

1—30				31—60				61—90				91—114				1s—13s			
Mag.	α 35^{m}	x	y	Mag.	α 36^{m}	x	y	Mag.	α 36^{m}	x	y	Mag.	α 36^{m}	x	y	Mag.	α 35^{m}	x	y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
15.91 1	52.0	83.00	− 6 42	15.77 8	10.3	87.57	− 0 52	16.28 5	33.5	93.37	+ 8 45	17.20 3	55.7	98.93	− 6 51	16.24 3	46	81.4	− 2.4
18.09 2	53.0	83.26	+ 0 25	17.91 2	11.3	87.83	− 4 52	15.43 9	36.1	94.02	+ 3 04	13.82w 9	55.9	98.98	− 3 14	14.64 8	47	81.7	− 3.5
16.39 5	54.1	83.53	+ 3 00	17.25 3	11.3	87.83	− 5 27	15.65 9	36.1	94.02	− 2 46	16.53 1	56.8	99.20	+ 9 42	16.06 4	47	81.7	+ 1.6
16.40 5	54.3	83.57	− 3 09	15.74 8	12.5	88.12	+ 4 42	16.91 4	36.2	94.05	− 1 51	15.83 8	56.8	99.21	− 3 51	14.22 9	48	81.9	− 2.2
16.11 1	54.8	83.69	+ 8 28	14.80 9	12.6	88.16	+ 9 26	16.84 3	36.4	94.09	+ 6 33	17.25 3	57.8	99.44	+ 0 05	14.09 9	50	82.6	− 2.0
14.87 9	54.8	83.69	− 7 04	14.72 10	13.1	88.28	+ 9 42	17.84 2	37.6	94.39	− 7 51	16.97 3	59.2	99.80	+ 8 05	15.34 8	52	83.0	− 3.2
17.99 2	55.8	83.95	− 7 18	17.61 2	13.4	88.36	+ 4 16	16.31 5	38.6	94.64	+ 1 10	15.54 1	60.2	0.06	+ 8 37	16.87 2	78	89.6	−10.8
17.15 3	55.9	83.98	+ 3 45	17.22 3	15.7	88.92	+ 3 33	16.80 3	38.6	94.65	+ 1 41	16.81 3	61.3	0.32	− 1 57	15.76 6	98	94.4	−10.9
14.71 9	55.9	83.98	+ 0 59	15.72 8	18.6	89.66	+ 8 21	15.64 8	39.1	94.77	+ 9 52	12.90w12	62.0	0.50	− 0 27	16.81 2	98	94.4	−10.6
16.31 5	56.0	84.01	+ 6 08	16.97 3	18.8	89.70	+ 6 03	17.47 3	39.1	94.78	− 0 10	17.26 1	62.6	0.65	+ 8 48	14.26 8	99	94.7	−10.6
15.56 9	57.5	84.37	− 4 17	14.64 9	20.0	89.99	+ 7 13	17.78 2	39.3	94.82	+ 3 52	17.64 2	63.7	0.92	− 4 44	15.57 8	107	96.8	−10.4
17.91 2	59.2	84.81	+ 4 25	17.59 3	20.3	90.08	− 0 39	12.74w13	39.5	94.88	+ 4 23	17.60 2	65.2	1.30	+ 5 22	16.19 4	133	3.2	− 4.4
17.31 3	60.9	85.23	− 3 53	15.31 9	20.6	90.16	+ 6 59	16.90 3	39.6	94.89	+ 7 27	17.28 2	65.2	1.31	+ 6 18	15.69 6	133	3.3	− 4.6
15.90 7	60.9	85.23	− 7 47	17.40x 1	21.4	90.34	− 9 43	16.00 7	41.4	95.36	+ 6 54	15.66 8	65.3	1.32	+ 3 54				
18.25 2	61.4	85.36	+ 1 05	17.62 2	22.5	90.63	+ 6 54	17.45 3	43.2	95.79	− 4 46	15.02 1	65.4	1.35	− 8 57				
15.55 9	61.6	85.39	+ 2 05	16.89 3	23.7	90.92	− 8 32	14.69 9	43.9	95.94	+ 4 30	17.81 2	65.5	1.38	− 4 43				
16.15 5	61.9	85.48	+ 2 54	16.16 5	23.7	90.93	− 9 50	15.83 9	45.6	96.39	− 2 23	16.89 3	66.0	1.50	+ 6 33				
15.32 8	62.4	85.59	+ 5 45	16.73 3	23.7	90.93	+ 6 32	16.31 5	45.9	96.46	+ 6 35	14.64 8	66.5	1.62	− 3 07				
17.62 2	63.8	85.95	− 1 54	16.44 5	25.4	91.36	− 9 41	14.97 10	45.9	96.47	− 8 58	16.04 1	67.0	1.76	+ 9 29				
18.17 2	64.0	86.01	+ 3 59	18.14 2	25.5	91.37	− 3 36	17.44 2	46.2	96.54	+ 9 29	16.93 3	68.4	2.10	+ 2 50				
14.25 10	64.7	86.17	− 1 12	18.01 2	26.2	91.54	+ 8 28	17.01 3	46.2	96.56	+ 1 16	15.17 9	69.6	2.39	− 3 32				
17.42 3	64.7	86.18	− 0 46	17.31 3	26.3	91.57	− 1 23	14.92 10	48.4	97.09	− 5 40	16.68 1	70.6	2.65	+ 6 33				
16.85 3	65.2	86.31	− 6 18	14.75 10	27.0	91.74	− 5 04	15.14 9	48.5	97.12	− 9 16	16.61 3	70.9	2.72	− 4 19				
16.92 3	65.7	86.42	− 3 46	12.04w13	29.3	92.33	− 9 14	16.67 3	50.6	97.66	+ 5 05	18.22 1	71.0	2.74	− 8 04				
17.01 3	66.2	86.55	+ 1 28	17.34 3	29.9	92.47	+ 4 45	16.47 5	50.9	97.72	+ 2 54								
17.84 2	68.2	87.05	− 9 17	16.90 3	30.2	92.54	+ 8 15	17.36 3	51.5	97.87	+ 2 46								
14.47 9	68.4	87.09	− 7 06	16.74* 1	30.6	92.66	− 1 49	15.77 8	52.2	98.05	+ 2 43								
16.58 5	68.7	87.17	− 2 01	10.60w12	31.1	92.77	− 0 20	17.13 3	53.1	98.28	+ 2 56								
14.74 10	68.8	87.20	− 5 52	15.95 5	32.0	92.99	− 0 49	16.73 3	53.8	98.44	− 5 21								
15.90 7	70.1	87.53	− 1 16	15.54 9	33.2	93.31	− 8 00	16.43 5	54.8	98.71	− 1 29								

25 prec. + $76^{\mathrm{s}}.8$, − 6′ 29″

Area 107. Center for 1900: 15^{h} 34^{m} 0° 0′ (20′ × 20′)

1—40			
Mag.	α 33^{m}	x	y
	s	′	′ ″
16.11 1	17.1	89.27	+ 8 37
17.90 3	17.1	89.27	− 0 14
13.67 1	18.0	89.50	− 9 26
17.15 5	18.8	89.69	− 3 27
17.63d 1	19.4	89.85	− 5 30
17.83 3	19.5	89.87	+ 8 26
17.74 3	19.7	89.92	− 2 49
15.20 11	19.8	89.94	− 4 57
16.98 7	20.2	90.04	− 0 01
17.79 1	20.2	90.06	+ 8 49
17.70 3	20.8	90.20	+ 5 01
18.33 3	20.9	90.22	+ 8 15
17.37 3	21.2	90.30	+ 7 43
17.22 5	21.4	90.34	+ 4 37
17.69 3	21.5	90.37	+ 2 28
15.56 8	21.6	90.39	+ 6 43
13.19 15	22.0	90.50	+ 5 51
17.63 3	22.0	90.50	+ 0 32
17.82 3	22.4	90.59	+ 4 00
15.28 11	22.6	90.66	− 1 59
16.00 1	22.8	90.69	− 7 55
15.46 10	23.0	90.74	+ 4 52
15.23 11	23.6	90.89	+ 5 14
16.52 7	24.0	91.01	+ 8 28
16.86 8	25.2	91.29	+ 5 09
17.95 3	25.5	91.37	+ 3 15
15.92 10	25.8	91.45	− 7 29
17.89 3	26.1	91.52	+ 7 01
11.94w 9	26.8	91.71	+ 1 33
18.06 3	27.1	91.78	+ 7 38
17.65 3	27.2	91.80	+ 2 49
17.85 3	28.2	92.05	+ 6 27
17.30 3	28.4	92.10	+ 0 29
13.83 12	28.7	92.17	+ 6 55
16.72 9	28.9	92.23	+ 5 13
15.20 11	29.2	92.29	− 5 09
12.16w 15	29.2	92.29	− 3 47
17.86 3	29.2	92.29	− 4 43
17.86 3	29.8	92.44	+ 6 52
17.50 3	30.3	92.58	− 7 53

41—80			
Mag.	α 33^{m}	x	y
	s	′	′ ″
17.39 3	31.4	92.85	− 5 44
14.52 12	32.1	93.03	− 6 38
15.57 10	32.2	93.05	− 0 29
17.13 5	32.3	93.07	− 1 34
16.57 9	32.6	93.16	+ 7 18
15.26 12	32.8	93.19	+ 6 05
17.14 7	32.8	93.20	+ 4 38
17.32d 1	33.1	93.28	− 4 29
17.32 4	34.8	93.70	+ 9 30
16.24 9	35.0	93.77	− 8 12
13.92 13	35.2	93.80	− 0 09
17.37 3	35.5	93.88	+ 7 39
17.65 3	35.6	93.89	+ 7 34
16.61 9	36.3	94.07	+ 6 33
18.06 3	36.4	94.11	− 6 08
17.02 7	37.0	94.25	+ 0 29
17.92 3	37.8	94.44	− 1 59
17.84 3	37.9	94.47	+ 9 07
17.73 3	38.5	94.62	+ 3 40
16.71 9	38.7	94.67	+ 0 31
15.61 11	38.7	94.68	+ 6 47
15.50 11	39.2	94.79	− 0 38
17.29 5	39.3	94.82	− 5 49
17.57 3	39.8	94.95	+ 9 34
17.63d 1	40.0	94.99	− 9 45
17.80 3	40.8	95.20	− 0 18
17.38 3	41.3	95.32	+ 8 39
17.73 4	42.4	95.60	− 3 57
15.22 12	42.4	95.60	+ 8 49
13.13 17	42.4	95.60	− 4 51
13.39w 15	42.7	95.68	+ 2 27
17.67 3	42.9	95.73	+ 0 47
13.33 17	43.1	95.77	− 2 56
16.54 9	43.6	95.90	− 6 20
18.32 3	44.0	96.00	+ 5 00
17.00 7	44.6	96.15	+ 3 11
15.45 11	45.0	96.26	− 6 38
16.91 5	45.1	96.27	+ 9 58
17.49 3	45.4	96.35	− 7 54
16.53 8	46.4	96.59	− 0 08

81—120			
Mag.	α 33^{m}	x	y
	s	′	′ ″
17.72w 2	46	96.6	− 6 42
17.94 3	46.9	96.73	+ 9 10
16.72 8	47.9	96.98	+ 5 43
18.04 3	49.4	97.34	+ 2 20
17.32 5	49.5	97.38	+ 4 15
17.34 4	49.9	97.48	+ 7 09
17.92 3	50.1	97.52	+ 9 52
16.54 7	50.7	97.68	− 9 25
17.99 3	51.2	97.79	− 5 55
18.02 3	51.3	97.83	+ 0 40
17.41 3	51.7	97.93	− 6 52
17.24 7	51.9	97.97	+ 0 18
17.98 3	52.4	98.09	+ 8 35
16.19 7	52.5	98.12	+ 2 21
17.11 5	52.9	98.22	+ 7 23
17.17 7	54.1	98.52	0 00
17.24 5	54.1	98.53	+ 4 52
18.05 3	54.5	98.63	+ 8 20
8.07w 6	**54.7**	**98.67**	**+ 1 01**
17.22 7	55.1	98.77	+ 6 19
17.09 7	55.2	98.79	− 2 19
18.08 3	55.2	98.79	− 8 37
11.89w 15	55.4	98.85	+ 5 44
16.28 5	56.4	99.09	+ 0 38
17.66 3	56.7	99.18	− 8 50
17.35 3	57.1	99.27	+ 8 08
17.36 3	57.2	99.30	− 9 29
18.08 3	57.4	99.36	+ 4 55
17.52 3	58.3	99.57	− 8 45
17.20 7	58.4	99.60	− 0 45
17.41 5	58.6	99.64	+ 2 29
17.78w 2	60	99.9	− 9 00
17.28 7	60.4	0.10	− 3 07
17.34 3	60.6	0.15	− 8 44
17.77 3	61.1	0.28	− 3 50
17.88 3	61.4	0.34	− 4 22
17.25 4	61.7	0.43	+ 5 35
18.01 3	61.8	0.46	+ 9 15
16.59 9	61.8	0.47	+ 3 39
15.34 10	62.0	0.49	+ 5 06

121—160			
Mag.	α 34^{m}	x	y
	s	′	′ ″
17.19 4	2.5	0.62	+ 9 17
15.29 11	2.6	0.65	+ 3 43
17.29 3	2.6	0.66	− 9 24
17.55 5	3.0	0.76	+ 1 00
17.88 3	3.5	0.88	− 2 33
17.75 3	5.1	1.28	− 2 49
17.24 5	5.3	1.33	+ 1 56
17.48 3	5.5	1.37	+ 8 56
16.06 9	6.3	1.57	+ 6 07
17.58 3	6.5	1.62	+ 2 51
18.03 3	6.9	1.73	+ 4 38
17.89 3	7.1	1.78	− 8 26
12.75 16	7.2	1.80	− 6 32
17.96 3	8.8	2.21	+ 1 23
17.83 3	8.9	2.22	− 8 35
17.54d 1	10.2	2.55	− 1 36
17.34 5	10.6	2.66	+ 2 57
13.20 16	11.4	2.85	+ 4 04
12.02w 14	11.9	2.97	− 5 53
14.40w 10	12.0	3.00	− 6 21
18.00 3	13.5	3.37	+ 3 47
16.41 9	13.5	3.38	+ 0 08
17.85 3	13.7	3.42	+ 3 00
17.85 3	13.8	3.44	+ 5 23
17.10 3	14.7	3.68	− 8 39
17.60 3	15.2	3.79	+ 3 05
17.09 5	15.2	3.81	− 2 41
15.38 11	15.4	3.86	+ 0 39
17.39 3	15.9	3.98	+ 4 14
17.09 3	16.5	4.13	− 9 05
17.64 3	17.5	4.38	+ 4 09
17.26 3	17.6	4.39	− 6 31
17.20 5	17.8	4.44	− 3 52
17.94 3	17.8	4.44	+ 4 05
17.17 5	17.9	4.48	+ 2 35
18.00 3	17.9	4.48	+ 1 15
17.75 1	18.6	4.66	− 9 59
16.81 7	19.0	4.74	+ 6 29
17.26 4	19.1	4.78	− 0 32
17.25 3	19.1	4.78	− 3 56

161—195			
Mag.	α 34^{m}	x	y
	s	′	′ ″
17.75 3	20.0	4.99	− 0 01
14.25 12	21.8	5.44	− 3 02
17.41 3	21.8	5.46	+ 4 27
13.53 13	22.7	5.68	+ 3 00
17.13 5	22.9	5.72	+ 4 19
16.83 4	23.0	5.76	+ 5 25
16.60 7	23.1	5.77	+ 6 28
11.54w 14	23.2	5.79	+ 2 07
18.08 3	24.6	6.16	− 1 50
17.80 3	25.1	6.28	+ 8 42
17.87 1	25.5	6.38	− 7 22
17.19 5	26.2	6.54	− 1 59
16.75 3	26.6	6.66	+ 8 53
14.17 12	26.6	6.66	+ 5 28
17.56 3	27.1	6.77	− 2 50
15.26 1	27.2	6.79	− 9 25
17.72 3	27.6	6.90	+ 3 22
17.30 3	27.6	6.90	+ 6 37
15.08 7	27.8	6.95	+ 6 54
15.08 10	28.0	7.00	+ 4 24
17.78 3	28.4	7.09	+ 1 48
17.78 3	28.6	7.16	− 1 16
17.19 4	29.2	7.30	− 2 17
13.05 1	30.6	7.64	− 7 06
16.99 7	30.7	7.67	+ 0 27
16.00 1	31.3	7.83	− 7 28
16.79 5	31.8	7.93	+ 2 01
17.70 3	31.9	7.98	+ 5 40
17.77 3	33.0	8.24	− 5 20
17.41 1	33.7	8.42	− 7 47
14.53 7	33.7	8.42	+ 6 20
17.06 4	34.6	8.64	− 1 38
15.02 1	34.9	8.73	+ 9 33
17.32 1	35.9	8.97	+ 6 55
17.87 1	36.0	8.99	− 4 13

25 prec. + 76ˢ.8, − 4′ 58″

Area 107. Supplementary Stars

1s—10s			
Mag.	α 33^{m}	x	y
	s	′	′
14.64 10	9	87.3	+ 0.3
16.69 4	10	87.4	+ 0.4
17.02 4	14	88.4	+ 3.8
15.89 8	14	88.6	+ 6.0
16.06 8	15	88.8	+ 5.6
16.40 4	35	93.7	+11.0
17.96 2	44	96.0	+11.6
18.13 2	49	97.2	+11.8
17.58 2	51	97.8	+11.8
17.16 3	52	97.9	+10.2

11s—20s			
Mag.	α 33^{m}	x	y
	s	′	′
16.63 8	52	98.0	+10.0
17.73 2	57	99.4	+10.7
15.74 8	58	99.4	+11.1
16.91 6	65	1.3	+10.7
17.09 3	65	1.4	+12.0
16.97 6	67	1.8	+10.4
17.03 4	69	2.2	+10.8
17.81 2	71	2.7	+10.6
17.96 2	96	9.0	+ 2.6
16.95 4	97	9.3	+ 3.2

21s—22s			
Mag.	α 34^{m}	x	y
	s	′	′
16.96 6	38	9.4	− 0.5
17.61 2	39	9.8	− 0.5

25 prec. + 76ˢ.8, − 4′ 58″

Area 108. Center for 1900: 16h 32m − 0° 10′ (15′ × 15′)

1—60				
Mag.		α 31^m	x	$y-10'$
		s	′	′ ″
16.51	5	44.1	96.02	18 34
18.10	2	44.2	96.04	11 41
17.41	3	44.6	96.15	10 00
18.10	1	44.8	96.21	8 32
17.67	3	44.9	96.22	7 24
14.30	10	45.1	96.28	16 22
18.00	3	45.2	96.29	15 32
17.11	3	45.2	96.31	11 58
17.10	3	45.3	96.32	13 51
14.61	11	45.4	96.35	19 36
17.02	3	45.4	96.35	8 20
17.98	3	45.8	96.44	7 12
18.10	1	45.8	96.45	18 49
15.34	10	46.1	96.52	9 16
16.90	3	46.1	96.53	8 01
17.77	3	46.2	96.54	18 16
17.55	3	46.2	96.56	9 10
16.98	3	46.5	96.64	11 21
16.84	3	46.6	96.65	10 40
17.91	3	46.6	96.65	16 26
16.37	3	46.7	96.68	19 30
16.24	6	46.8	96.71	15 07
14.15	12	46.9	96.72	14 59
17.78	3	47.0	96.76	16 10
18.10	1	47.2	96.81	5 14
16.75	3	47.4	96.85	14 34
16.24	6	47.7	96.93	9 02
15.99	8	47.8	96.94	13 02
18.14	3	47.8	96.94	17 01
17.91	3	48.0	96.99	17 31
17.38	3	48.2	97.05	15 04
17.52	1	48.4	97.11	12 36
16.56	5	48.5	97.13	5 45
17.45	3	48.6	97.14	10 11
17.49	3	48.6	97.15	13 28
17.22	3	48.8	97.19	15 30
15.26	10	48.9	97.23	17 03
17.92	1	49.2	97.29	17 39
16.60	3	49.2	97.30	13 01
18.19	1	49.5	97.37	8 37
17.69	3	49.8	97.44	16 04
18.30	2	50.1	97.52	9 16
16.75	3	50.2	97.55	18 57
13.76	12	50.2	97.56	12 34
17.11	3	50.3	97.57	19 27
17.28	3	51.2	97.80	19 06
16.27	5	51.6	97.89	17 07
16.93	3	51.8	97.95	15 00
17.57	3	52.0	98.01	9 42
18.26	1	52.1	98.02	12 53
16.96	3	52.3	98.08	15 25
18.19	1	53.0	98.25	8 36
17.09	3	53.2	98.29	10 50
16.56	3	53.2	98.31	14 07
17.99	3	53.4	98.36	5 44
18.26	1	53.5	98.38	14 49
16.63	3	53.6	98.39	5 12
18.26	1	53.6	98.41	15 56
17.15	3	53.7	98.43	13 12
18.04	3	53.7	98.43	7 56

61—120				
Mag.		α 31^m	x	$y-10'$
		s	′	′ ″
17.56	3	53.8	98.44	10 00
17.13d	1	54.0	98.50	8 44
16.85	3	54.2	98.56	13 45
16.45	3	54.2	98.56	19 49
16.74	3	54.4	98.60	8 04
16.47	3	54.5	98.63	8 35
16.36	3	54.9	98.73	17 56
16.40	5	55.2	98.79	14 56
17.49	3	55.4	98.84	19 46
14.17	10	55.5	98.87	14 45
17.51	3	55.6	98.90	10 40
16.40	5	55.8	98.94	15 24
18.10	1	56.0	98.99	19 22
16.47	3	56.5	99.13	15 56
15.07	10	56.6	99.16	10 38
17.33	3	56.6	99.16	18 48
16.47	3	56.8	99.20	15 15
16.91	3	56.9	99.23	6 17
16.84	3	57.0	99.24	13 09
16.57	2	57.0	99.24	10 16
17.61w	2	57	99.3	15 30
17.90	2	57.3	99.32	10 15
18.26	1	57.6	99.40	9 37
16.52	3	57.8	99.46	11 38
18.10	3	58.2	99.55	7 53
15.02	10	58.4	99.59	9 23
17.14	2	58.5	99.63	9 25
17.41	3	58.8	99.69	13 51
16.82	3	58.8	99.70	15 25
16.98	3	59.0	99.76	18 02
16.45	3	59.6	99.89	11 04
12.09w	15	60.0	99.99	16 24
16.28	6	60.0	0.00	8 39
16.47	5	60.6	0.14	17 24
17.92	1	60.8	0.19	10 14
17.98	3	60.8	0.19	14 57
17.68	1	61.0	0.25	9 53
18.15	3	61.2	0.31	6 46
17.69	3	61.4	0.34	19 00
17.23	3	61.5	0.37	15 09
16.38	4	61.7	0.43	12 44
17.67	2	61.8	0.45	5 48
16.65	3	62.0	0.50	16 46
16.06	6	62.2	0.54	18 40
17.59	3	62.4	0.59	14 02
18.12	2	62.6	0.65	6 20
17.94	3	62.9	0.72	13 15
16.35	5	63.0	0.76	19 44
15.28	10	63.2	0.80	9 49
15.07	10	63.4	0.86	13 10
17.50	3	64.1	1.03	10 50
15.05	9	64.2	1.05	6 30
17.08	3	64.2	1.06	5 15
17.75	3	64.4	1.09	19 45
16.53	5	64.5	1.13	10 02
18.04	2	64.6	1.14	16 59
16.92	3	64.6	1.14	10 12
17.07	3	65.0	1.26	14 59
16.10	5	65.3	1.33	11 41
17.13	3	65.5	1.38	5 51

121—180				
Mag.		α 32^m	x	$y-10'$
		s	′	′ ″
17.98	2	5.7	1.43	18 38
17.16	3	6.2	1.54	11 45
17.06	3	6.2	1.54	16 16
16.76	3	6.2	1.56	15 57
15.30	10	6.6	1.64	10 44
18.30	2	6.6	1.66	11 25
16.34	6	6.8	1.70	7 59
17.14	3	6.9	1.73	16 49
17.44	3	7.0	1.76	8 58
18.33	3	7.1	1.78	15 17
16.72	3	7.2	1.80	10 08
17.91	3	8.0	1.99	11 07
17.11	3	8.1	2.02	7 39
17.51	3	8.2	2.05	15 34
17.99	3	8.2	2.06	12 18
16.45	3	8.6	2.16	19 24
17.31	3	9.2	2.30	8 10
17.18	3	9.3	2.32	8 15
17.11	3	9.4	2.36	6 18
15.65	10	9.6	2.40	8 25
18.19	1	9.8	2.44	11 02
18.04	3	9.8	2.46	11 08
18.04	3	9.8	2.46	5 40
17.92	3	9.9	2.48	14 29
16.83	3	10.2	2.54	13 30
18.19	3	11.0	2.76	9 21
16.65	4	11.4	2.84	11 04
18.10	1	11.5	2.87	19 40
16.49	5	11.6	2.89	8 15
17.93	3	12.2	3.05	15 50
17.66	3	12.3	3.08	6 34
15.86	9	12.4	3.09	18 09
17.83	3	12.5	3.12	15 13
17.78	3	12.6	3.14	16 07
16.10	8	12.6	3.14	15 29
16.97	1	12.8	3.20	12 26
17.65	3	12.9	3.22	11 40
17.36	3	13.0	3.25	6 26
16.93	3	13.1	3.28	7 18
9.37w	8	13.5	3.38	12 35
18.39	3	13.5	3.38	11 54
17.86	3	13.6	3.39	13 56
17.82	3	13.8	3.44	18 17
17.38	3	13.9	3.48	11 34
16.77	3	14.1	3.53	14 05
18.00	3	14.2	3.55	17 53
18.19	1	14.3	3.58	6 04
15.64	9	14.4	3.59	8 59
17.09	3	14.4	3.60	6 46
18.04	2	14.5	3.63	9 02
17.68d	1	14.6	3.64	12 20
16.12	6	15.2	3.79	17 48
15.13	10	15.4	3.84	7 03
17.44	1	15.4	3.84	12 28
16.72	3	15.5	3.87	17 13
16.84	3	15.6	3.89	9 04
18.44	1	15.6	3.90	11 16
17.80	3	16.2	4.04	17 31
15.30	10	16.2	4.05	6 13
18.01	1	17.0	4.26	5 26

181—240				
Mag.		α 32^m	x	$y-10'$
		s	′	′ ″
17.77	1	17.0	4.26	5 46
15.08	9	17.2	4.30	18 29
18.12	2	17.6	4.39	17 10
18.44	1	17.8	4.45	10 58
17.31	3	18.0	4.51	14 49
17.65	3	18.2	4.55	11 16
16.81	3	18.6	4.64	9 46
17.84	3	18.6	4.65	11 04
16.14	8	19.0	4.74	14 53
18.14	3	19.0	4.74	18 06
15.30	10	19.0	4.75	18 00
16.94	3	19.0	4.75	19 28
18.26	1	19.1	4.78	8 22
16.69	5	19.2	4.80	17 52
18.00	3	19.4	4.84	17 27
17.97	3	19.6	4.89	16 27
15.90	9	19.8	4.94	14 44
16.77	3	19.8	4.95	11 44
17.94	2	19.8	4.96	18 18
17.81	3	19.9	4.98	14 02
17.03	3	20.9	5.23	13 46
18.19	1	21.0	5.24	18 12
16.44	3	21.3	5.32	19 47
17.75	3	21.4	5.36	7 47
17.98	2	21.6	5.39	17 08
18.05	3	21.6	5.39	11 17
18.08	2	21.8	5.44	12 39
16.99	3	22.0	5.49	14 48
18.19	1	22.0	5.51	7 17
14.71	10	22.2	5.56	5 49
17.16	3	22.2	5.56	16 26
17.20	3	22.4	5.59	14 27
15.36	9	22.9	5.72	15 17
16.47	3	23.5	5.88	17 00
17.63	3	23.8	5.94	5 56
15.79	7	23.8	5.95	8 05
18.24	3	23.9	5.97	6 14
17.10	3	24.3	6.08	14 47
18.19	1	24.4	6.10	6 29
17.65	3	24.6	6.14	14 59
18.01	1	24.6	6.15	12 07
18.18	3	24.7	6.17	13 33
16.14	8	24.7	6.18	14 53
16.07	6	24.8	6.20	9 35
16.32	6	25.0	6.24	11 41
16.11	6	25.0	6.26	8 21
17.25	3	25.1	6.28	7 36
18.36	3	25.2	6.31	11 46
17.01	3	25.4	6.34	17 47
16.25	3	25.4	6.34	19 21
17.05	3	26.2	6.55	10 31
18.10	1	26.2	6.56	6 22
18.10	1	26.6	6.65	19 56
16.50	5	26.6	6.65	17 32
17.78	2	26.9	6.72	11 37
18.19	1	27.0	6.75	7 01
18.02	2	27.3	6.83	9 07
17.52	2	27.3	6.83	14 04
16.03	6	27.5	6.87	17 26
17.30	3	27.6	6.90	6 27

241—300				
Mag.		α 32^m	x	$y-10'$
		s	′	′ ″
17.67	3	27.7	6.92	17 16
16.34	6	28.0	7.00	5 41
16.37	5	28.2	7.04	14 35
16.39	5	28.2	7.04	16 35
18.16	2	28.2	7.05	14 01
18.06	2	28.3	7.07	9 36
18.08	3	28.6	7.14	11 20
15.54	9	28.8	7.19	11 13
17.82	3	28.8	7.21	9 48
16.37	4	29.0	7.25	17 48
18.19	1	29.1	7.27	8 57
17.81	3	29.4	7.34	19 37
14.74	10	29.4	7.36	14 03
17.38	3	29.8	7.46	13 04
17.92	1	30.2	7.54	15 49
17.86	2	30.4	7.59	11 12
16.80	3	30.8	7.71	11 22
16.39	5	30.8	7.71	6 28
15.70	7	31.0	7.74	5 19
17.21	3	31.4	7.85	11 28
16.78	3	31.5	7.87	8 54
17.13	3	31.7	7.92	15 01
15.74	9	32.0	8.01	5 43
18.11	2	32.2	8.05	15 16
16.11	6	32.2	8.06	7 40
16.70	3	32.5	8.13	11 15
15.24	10	32.6	8.15	19 22
17.92	1	32.8	8.19	15 53
17.98	3	32.8	8.20	7 58
15.08	10	33.0	8.24	17 51
16.83	3	33.2	8.30	18 46
15.36	9	33.3	8.32	15 23
14.94	9	33.4	8.35	15 51
16.16	6	33.4	8.35	13 51
18.08	2	33.6	8.40	10 21
17.67	2	33.6	8.41	18 45
17.60d	1	34.0	8.51	14 38
17.73	3	34.1	8.52	7 45
18.10	1	34.4	8.60	5 47
14.17	10	34.9	8.73	7 14
17.81	3	35.0	8.74	7 45
18.19	1	35.1	8.77	10 08
17.05	3	35.1	8.78	17 50
14.80	10	35.2	8.80	6 15
16.61	3	35.4	8.86	8 29
15.45	10	36.2	9.05	7 03
14.92	10	36.2	9.06	8 43
17.46	3	36.4	9.10	16 22
18.07	3	37.1	9.27	9 14
17.31	3	37.4	9.36	14 12
16.29	5	37.6	9.40	13 53
16.45	5	37.8	9.44	5 51
13.05	12	37.8	9.45	16 19
17.80	2	38.0	9.49	13 03
17.56	3	38.4	9.59	12 44
17.32	3	38.6	9.66	6 48
17.72	3	39.8	9.95	11 06
17.24	3	39.8	9.95	10 47
18.21	3	40.0	10.00	14 53
17.56	3	40.4	10.09	18 25

25 prec. + $76^s.8$, − 3′ 8″

301—310

Mag.		α 32m	x	y−10′
		s	′	′ ″
17.90	2	40.6	10.15	6 32
16.72	3	41.2	10.31	5 38
12.75	14	42.0	10.49	10 15
15.73	9	42.2	10.56	8 23
17.89	3	42.4	10.60	7 05
18.10	1	43.2	10.79	8 44
16.40	5	43.2	10.79	14 07
17.41	3	43.8	10.94	19 01
18.10	1	43.8	10.95	17 47
14.38	10	44.0	11.00	7 53

25 prec. + $76^{\mathrm{s}}.8$, − 3′ 7″

16h Area 108. Supplementary Stars − 0°

1s—40s

Mag.		α 31m	x	y−10′
		s	′	′
15.12	8	29	92.2	12.2
16.97	2	31	92.8	14.7
17.33	2	32	93.0	12.2
16.58	2	33	93.3	14.3
16.80	2	33	93.3	14.2
15.80	7	33	93.4	7.8
17.44	2	34	93.6	14.8
18.07	2	34	93.6	9.0
16.28	3	34	93.6	6.9
16.44	2	35	93.8	15.3
16.32	2	36	94.0	15.0
14.88	8	36	94.0	9.6
17.90	2	37	94.2	16.8
17.48	2	37	94.2	9.4
16.84	2	37	94.3	15.4
17.22	2	37	94.3	13.4
15.92	7	37	94.4	11.9
16.37	3	38	94.5	10.6
17.96	2	38	94.6	18.5
17.98	2	38	94.6	17.2
17.64	2	38	94.6	8.4
16.60	2	38	94.6	8.0
15.44	8	39	94.8	10.0
17.50	2	40	95.0	6.1
18.16	2	41	95.2	17.0
16.00	5	41	95.2	12.2
15.80	7	41	95.2	11.8
17.26	2	41	95.2	9.4
17.20	2	41	95.2	7.8
14.72	8	41	95.3	18.0
17.91	2	42	95.4	18.4
15.96	7	42	95.4	13.4
17.01	2	42	95.4	8.5
17.92	2	41	95.4	6.0
16.62	4	42	95.5	18.8
17.95	2	42	95.6	12.4
17.78	2	42	95.6	9.4
17.42	2	42	95.6	6.8
14.58	9	43	95.7	7.2
17.77	2	43	95.8	10.4

41s—80s

Mag.		α 31m	x	y−10′
		s	′	′
18.00	2	44	96.0	20.4
17.69	2	44	96.0	12.4
12.63	13	46	96.6	20.4
16.52	2	47	96.8	21.2
11.56	11	47	96.8	4.2
16.47	2	52	97.9	2.9
16.15	5	52	98.0	20.3
12.73	13	52	98.1	22.6
17.08	2	53	98.4	3.8
15.96	5	54	98.6	4.4
16.16	5	55	98.7	20.9
17.23	2	55	98.8	22.0
18.05	2	56	98.9	20.2
17.02	2	57	99.2	23.0
17.56	2	57	99.2	22.3
17.57	2	57	99.3	21.2
16.40	2	57	99.3	3.4
17.66	2	59	99.6	20.4
15.92	5	59	99.7	3.2
16.77	2	59	99.8	21.6
16.90	2	59	99.8	2.2
16.96	2	60	0.0	3.8
17.68	2	60	0.0	2.1
16.77	2	60	0.1	20.6
15.48	7	61	0.2	4.0
16.83	2	62	0.6	21.6
17.66	2	64	1.1	21.0
16.15	5	65	1.2	22.8
17.20	2	66	1.6	3.3
17.53	2	67	1.7	20.4
17.13	2	67	1.8	20.6
17.77	2	68	1.9	2.8
16.77	2	69	2.2	20.2
14.40	8	69	2.2	2.4
17.46	2	70	2.4	23.8
16.38	4	70	2.4	20.8
16.77	2	70	2.5	23.6
17.41	2	70	2.5	22.2
16.58	2	71	2.7	22.5
13.57	11	71	2.8	21.8

81s—120s

Mag.		α 32m	x	y−10′
		s	′	′
16.62	2	12	3.0	4.4
17.90	2	13	3.2	4.6
16.45	2	13	3.2	4.0
17.98	2	13	3.3	22.2
17.92	2	14	3.4	22.4
16.10	5	15	3.8	22.3
17.27	2	15	3.8	21.4
16.70	2	15	3.8	3.2
16.20	5	19	4.8	21.8
16.55	2	19	4.8	4.3
17.37	2	20	5.0	21.0
16.38	2	20	5.0	5.0
17.96	2	21	5.2	23.4
15.76	7	22	5.4	23.6
17.69	2	23	5.7	2.8
15.60	7	24	5.9	20.8
16.36	4	25	6.2	21.5
17.96	2	26	6.5	23.4
16.83	2	26	6.5	4.4
17.43	2	26	6.6	22.4
17.12	2	26	6.6	21.7
16.00	5	27	6.7	20.4
15.80	5	28	7.0	1.8
17.21	2	29	7.2	4.8
17.93	2	29	7.3	22.4
15.93	5	29	7.3	4.6
18.02	2	30	7.4	22.0
16.76	2	31	7.6	2.6
16.13	5	31	7.7	4.0
17.91	2	31	7.7	3.2
17.18	2	31	7.8	20.4
13.95	8	32	8.1	22.6
17.58	2	33	8.4	3.8
17.36	2	34	8.4	3.6
13.41	8	34	8.6	3.4
17.65	2	37	9.2	20.3
17.13	2	37	9.2	4.0
16.47	2	37	9.3	22.2
16.51	2	38	9.4	22.0
17.23	2	38	9.4	20.7

121s—154s

Mag.		α 32m	x	y−10′
		s	′	′
14.90	9	38	9.6	3.4
10.96	8	40	9.9	21.0
16.92	2	44	11.0	8.2
16.63	2	44	11.1	13.6
17.84	2	45	11.3	16.7
17.18	2	45	11.4	4.6
17.26	2	46	11.5	8.1
16.68	2	46	11.6	18.6
17.94	2	46	11.6	16.2
15.97	5	47	11.8	5.8
17.58	2	49	12.2	11.2
17.96	2	49	12.2	6.9
16.93	2	49	12.4	11.8
17.87	2	50	12.6	9.1
18.05	2	51	12.7	12.0
17.95	2	51	12.8	15.0
16.60	2	51	12.8	12.1
16.98	2	51	12.8	12.0
17.59	2	52	13.1	17.0
15.80	7	52	13.1	15.6
15.96	7	53	13.3	14.0
17.76	2	53	13.3	10.0
17.79	2	54	13.4	8.3
15.45	8	55	13.7	10.6
15.31	8	55	13.7	9.6
17.69	2	55	13.7	9.5
16.18	5	55	13.8	16.9
16.84	2	56	14.0	14.8
17.92	2	56	14.0	13.4
16.29	2	56	14.0	11.2
16.09	5	56	14.0	8.7
16.82	2	57	14.2	14.4
17.60	2	57	14.2	9.0
16.15	5	58	14.5	13.8

Area 109. Center for 1900: $17^h\ 40^m$ − 0° 10′ (15′ × 15′)

1—60				61—120				121—180				181—240				241—300			
Mag.	α 39^m	x	$y-10'$	Mag.	α 39^m	x	$y-10'$	Mag.	α 39^m	x	$y-10'$	Mag.	α 39^m	x	$y-10'$	Mag.	α 39^m	x	$y-10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.53 3	12.0	88.00	6 49	17.53 3	19.1	89.78	1 08	18.13 3	26.3	91.57	9 28	18.22 3	32.8	93.19	14 11	17.22 3	39.4	94.84	12 33
17.35 3	12.2	88.04	11 55	15.68 9	19.1	89.78	3 00	17.11 3	26.4	91.59	8 43	13.53 18	32.8	93.21	8 44	18.18 2	39.4	94.85	9 58
11.99w 12	12.2	88.05	13 32	18.32 2	19.3	89.82	6 39	17.36 3	26.5	91.62	6 49	17.76 3	33.1	93.28	14 31	17.23 3	39.4	94.86	10 38
17.17 3	12.4	88.11	9 28	15.78 9	19.4	89.85	2 34	14.07 13	26.6	91.64	10 59	18.03 3	33.2	93.30	6 01	15.43 11	39.8	94.95	9 34
17.21 3	12.5	88.13	12 49	18.03 3	19.5	89.88	11 39	17.51 3	26.9	91.73	5 40	16.07 9	33.2	93.31	1 00	17.98 3	39.9	94.98	6 10
16.44 7	12.6	88.15	7 22	15.79 9	19.6	89.91	12 26	16.80 5	27.0	91.75	14 40	17.06 5	33.4	93.34	4 35	13.26 16	40.0	94.99	6 01
18.00 3	12.6	88.15	7 52	17.71 3	19.8	89.94	7 02	15.60 10	27.0	91.76	14 02	17.57 3	33.5	93.37	11 39	17.85 3	40.0	94.99	7 24
18.12 3	12.9	88.22	12 01	15.21 11	19.8	89.95	7 29	17.99 3	27.2	91.79	8 20	17.43 4	33.8	93.46	5 54	17.41 3	40.0	95.00	12 08
17.13 5	13.0	88.24	6 21	13.98 13	20.0	89.99	14 43	16.45 7	27.2	91.81	5 04	17.85 3	33.9	93.48	2 20	17.56 4	40.1	95.03	8 50
17.29 3	13.1	88.27	2 53	17.35 3	20.0	90.00	6 04	18.36 3	27.3	91.83	2 42	16.72 6	34.0	93.51	7 54	17.59 3	40.2	95.05	0 42
16.01 8	13.1	88.27	4 59	18.24 2	20.2	90.04	12 50	18.27 3	27.3	91.83	10 30	17.03 8	34.1	93.53	0 57	17.32 5	40.3	95.08	8 26
17.72 3	13.2	88.29	13 27	18.21 3	20.2	90.05	9 26	18.32 3	27.4	91.85	13 31	17.49 3	34.2	93.54	5 11	18.43 3	40.4	95.09	3 39
17.28 3	13.3	88.32	11 42	17.40 3	20.4	90.11	14 26	18.22 1	27.4	91.86	2 50	17.22 5	34.2	93.54	13 32	18.06 3	40.5	95.12	12 09
14.91 9	13.3	88.33	13 56	18.29 3	20.6	90.15	9 12	17.10 5	27.8	91.95	1 34	18.54 3	34.3	93.58	8 41	16.97 5	40.5	95.13	8 07
15.44 10	13.3	88.33	4 44	17.40 3	20.7	90.18	2 13	18.23 3	27.8	91.95	5 12	18.04 3	34.5	93.63	5 44	17.32 5	40.6	95.16	9 41
17.45 3	13.5	88.37	3 52	17.53 3	20.8	90.20	1 17	18.17 3	27.8	91.95	5 19	18.38 2	34.6	93.65	10 30	18.64 2	40.8	95.20	7 20
17.74 3	13.6	88.39	5 34	17.82 3	20.8	90.21	8 11	15.83 9	27.8	91.95	13 02	18.05 3	34.6	93.66	9 26	18.73 3	40.9	95.23	3 45
15.82 9	13.8	88.44	1 11	18.28 3	20.9	90.22	1 55	17.83 3	28.0	91.99	5 35	18.33 2	34.7	93.68	11 17	13.88 13	41.0	95.24	11 40
17.29 3	13.8	88.46	1 19	15.58 10	21.0	90.24	4 04	16.22 9	28.0	92.00	7 56	18.11 3	34.8	93.69	8 46	17.24 5	41.0	95.25	7 05
18.44 3	14.0	88.50	5 50	16.67 5	21.0	90.25	5 21	17.16 5	28.2	92.04	14 02	18.29 1	34.8	93.70	0 55	16.79 7	41.0	95.25	8 52
16.38 8	14.0	88.50	12 12	18.03 3	21.1	90.28	5 30	16.58 1	28.4	92.09	10 59	17.35 3	35.0	93.74	3 35	18.48 3	41.2	95.30	4 16
17.32 3	14.1	88.52	2 11	15.45 10	21.2	90.29	10 01	17.55 3	28.4	92.09	5 43	17.64 3	35.0	93.74	7 29	16.74 8	41.2	95.30	1 48
16.88 6	14.2	88.55	10 45	17.02 5	21.2	90.31	10 18	18.15 3	28.6	92.15	10 03	18.43 1	35.2	93.80	3 29	17.34 5	41.3	95.32	8 48
17.06 5	14.5	88.63	2 05	16.87 8	21.3	90.33	5 31	18.12 3	28.8	92.19	4 43	18.51 3	35.4	93.84	5 25	17.49 3	41.3	95.32	10 57
16.77 6	14.9	88.73	2 58	17.86 3	21.3	90.33	6 33	18.04 3	28.8	92.21	9 59	17.35 3	35.4	93.84	14 12	17.86 3	41.4	95.35	12 30
15.57 9	15.0	88.75	8 23	18.34 3	21.5	90.37	1 14	17.38 3	28.9	92.23	12 00	15.85 10	35.5	93.87	13 16	16.32 7	41.6	95.39	4 42
16.66 8	15.0	88.76	6 13	17.25 3	21.6	90.39	1 59	18.03 3	28.9	92.23	11 59	18.14 3	35.6	93.89	13 30	15.66: 2	41.8	95.44	0 23
17.33 3	15.1	88.78	12 25	18.41 3	21.6	90.40	7 09	16.69 7	29.0	92.24	9 39	17.41 3	35.6	93.90	12 32	18.36 3	41.8	95.46	6 22
16.58 6	15.3	88.83	2 01	18.58 3	21.8	90.44	10 33	18.35 3	29.4	92.34	6 09	17.41 3	35.6	93.91	12 56	17.58 3	41.9	95.47	1 31
17.29 3	15.6	88.89	11 23	18.06 3	21.8	90.46	3 29	17.55 3	29.4	92.34	11 51	16.79 8	35.7	93.93	3 25	18.42 3	42.0	95.51	11 00
13.74 13	15.6	88.90	10 10	17.67 3	22.2	90.55	12 39	16.92 6	29.4	92.35	3 36	16.75 8	35.7	93.93	7 35	17.65 3	42.2	95.54	3 01
17.80 3	16.1	89.03	1 39	17.97 3	22.2	90.56	13 15	17.96 3	29.4	92.36	2 47	15.16 11	35.8	93.94	7 16	18.47 3	42.4	95.59	11 29
17.10 5	16.2	89.05	2 28	17.88 3	22.3	90.57	12 46	18.16 3	29.5	92.37	13 45	16.79 7	35.8	93.95	3 35	18.15 3	42.4	95.61	14 23
18.08 3	16.2	89.05	7 49	15.91 8	22.3	90.58	11 06	16.19 9	29.5	92.37	14 05	18.28 3	35.8	93.95	10 55	18.32 3	42.5	95.62	10 43
16.72 8	16.6	89.14	8 38	17.27 3	22.3	90.58	7 36	17.59 3	29.9	92.48	2 23	16.57 7	36.0	93.99	9 01	18.41 3	42.5	95.62	6 22
15.71 10	16.6	89.16	12 10	17.89 3	22.6	90.64	2 14	13.47 14	30.1	92.52	9 37	18.04 3	36.2	94.02	2 53	17.53 3	42.5	95.63	0 52
17.68 3	16.7	89.17	13 11	16.22 7	22.6	90.65	10 38	15.21 11	30.2	92.54	9 47	18.33 3	36.2	94.06	11 26	18.02 3	42.6	95.64	9 59
17.75 3	16.8	89.21	10 24	15.11 12	22.8	90.69	9 37	16.74 6	30.2	92.54	14 11	17.25 5	36.6	94.14	7 12	17.37 3	42.9	95.72	1 14
14.66 12	17.4	89.35	0 53	16.77 8	22.8	90.70	6 50	18.19 3	30.2	92.56	12 54	16.44 7	36.7	94.17	1 32	16.09 8	43.0	95.74	4 26
15.97 9	17.5	89.38	2 01	17.27 5	23.0	90.74	5 07	16.47 7	30.3	92.57	9 43	17.76 3	36.8	94.21	7 27	16.23 7	43.0	95.75	8 33
17.37 3	17.6	89.39	7 58	18.15 3	23.0	90.74	10 43	18.43 3	30.7	92.67	13 00	17.71 3	37.1	94.28	5 10	17.94 3	43.0	95.75	9 34
17.33 3	17.8	89.45	5 34	18.29 3	23.1	90.78	2 23	18.47 3	30.7	92.68	2 27	16.74 8	37.3	94.32	7 26	17.17 3	43.0	95.76	1 28
14.66 12	17.8	89.45	6 33	18.28 3	23.2	90.80	0 29	18.08 3	31.0	92.74	3 26	17.72 3	37.6	94.39	7 40	17.75 3	43.0	95.76	10 41
17.98 3	18.0	89.50	14 54	18.32 3	23.6	90.91	0 51	15.68 9	31.3	92.83	13 25	17.53 3	37.6	94.41	1 08	9.08w 7	43.1	95.77	5 30
17.99 3	18.0	89.51	7 33	18.29 1	23.8	90.95	5 40	18.05 3	31.4	92.86	8 25	16.24 7	37.8	94.45	12 54	17.30 3	43.4	95.85	12 47
18.17 3	18.2	89.55	4 52	17.04 7	23.9	90.97	8 51	16.61 7	31.5	92.88	8 37	17.61 3	37.9	94.48	9 58	18.58 3	43.4	95.86	0 45
16.96 7	18.3	89.58	3 14	16.73 8	23.9	90.97	6 46	17.47 3	31.6	92.90	8 19	17.52 3	37.9	94.48	3 48	15.97 10	43.7	95.93	2 23
16.50 8	18.4	89.61	9 22	16.83 8	24.0	90.99	7 52	18.22 3	31.6	92.90	12 48	17.07 3	38.3	94.58	10 17	17.50 3	43.7	95.93	8 26
18.20 2	18.6	89.64	2 41	16.80 7	24.0	90.99	12 24	17.39 4	31.7	92.93	6 22	16.26 8	38.3	94.58	2 31	17.45 3	44.0	95.99	4 01
17.24 3	18.6	89.64	11 37	17.89 3	24.0	90.99	1 02	18.23 2	31.8	92.95	5 58	16.35 7	38.4	94.59	6 59	18.41 3	44.0	96.00	14 35
18.13 3	18.6	89.65	6 24	18.37 3	24.0	91.00	8 32	17.43 3	31.8	92.95	1 09	16.74 8	38.4	94.59	5 00	17.17 5	44.2	96.04	10 20
16.33 7	18.7	89.67	7 14	18.02 3	24.4	91.10	2 27	18.16 3	32.0	93.01	13 16	18.56 2	38.5	94.63	4 26	15.19 12	44.2	96.04	9 21
17.38 3	18.7	89.68	1 04	17.43 3	24.6	91.14	5 49	17.28 5	32.0	93.01	7 48	17.49 4	38.6	94.64	7 42	16.67 6	44.3	96.08	10 09
17.31 3	18.8	89.70	0 12	16.70 7	24.6	91.15	5 25	17.09 5	32.0	93.01	9 54	16.67 7	38.8	94.69	7 56	16.74 7	44.4	96.09	6 10
18.09 3	18.9	89.73	5 33	17.26 4	24.6	91.16	4 26	18.15 1	32.3	93.07	13 55	18.08 3	38.8	94.70	12 43	17.71 3	44.4	96.10	14 29
18.23 3	18.9	89.73	9 34	17.33 3	25.0	91.24	0 42	15.19 11	32.4	93.09	3 18	17.42 3	38.8	94.70	13 40	18.12 3	44.6	96.15	1 54
15.86 9	19.0	89.74	2 54	16.92 8	25.0	91.24	4 32	16.97 5	32.6	93.14	3 54	17.49 3	38.9	94.73	1 24	17.23 3	44.8	96.19	14 20
15.88 9	19.0	89.75	2 06	18.02 3	25.4	91.34	3 56	16.43 7	32.6	93.14	5 54	18.73 3	39.1	94.78	6 31	18.26 3	45.0	96.25	12 03
17.59 3	19.0	89.75	13 43	16.87 8	25.6	91.39	4 42	16.95 8	32.6	93.16	1 55	18.49 3	39.2	94.79	2 45	18.51 3	45.2	96.30	13 28
18.09 3	19.1	89.78	7 10	17.35 3	25.8	91.45	0 14	17.93 3	32.7	93.17	3 21	15.34 10	39.2	94.80	6 19	18.00 3	45.3	96.32	5 02

25 prec. + $76^{s}.8$, − 0′ 44″

301—360

Mag.		α 39m	x	y−10′
		s	′	′ ″
16.72	8	45.4	96.34	3 11
16.86	7	45.4	96.34	14 48
17.43	3	45.4	96.36	13 26
14.75	12	45.5	96.37	0 03
17.60	3	45.8	96.46	13 36
17.35	3	46.2	96.56	10 57
16.85	8	46.2	96.56	13 37
18.64	2	46.5	96.63	5 14
17.82	3	46.6	96.65	1 00
18.13	3	46.6	96.65	1 14
18.39	3	46.6	96.66	1 41
17.58	4	46.8	96.69	6 52
18.60	3	47.0	96.75	6 42
17.74	3	47.1	96.78	7 01
17.37	3	47.2	96.79	12 51
16.77	6	47.3	96.83	3 46
16.67	6	47.3	96.84	4 18
15.14	10	47.3	96.84	5 21
16.02	8	47.5	96.88	4 48
17.15	5	47.8	96.94	7 47
17.59	3	47.9	96.97	11 02
14.81	12	48.0	96.99	9 56
17.52	3	48.1	97.02	11 24
17.48	4	48.2	97.05	6 52
18.26	3	48.2	97.06	9 22
17.86	3	48.3	97.07	10 00
18.03	3	48.7	97.18	2 45
15.38	10	48.9	97.23	11 56
18.54	3	49.0	97.25	7 11
18.50	3	49.2	97.30	8 23
17.90	3	49.3	97.32	13 11
15.73	9	49.6	97.40	1 29
17.60	3	49.6	97.41	4 28
18.47	3	49.6	97.41	8 23
18.06	3	49.8	97.44	12 40
17.72	3	50.0	97.49	1 17
17.55	4	50.0	97.51	7 49
18.57	3	50.2	97.54	8 30
17.16	5	50.2	97.55	6 16
17.21	5	50.2	97.56	3 35
17.68	3	50.4	97.59	1 16
18.17	3	50.6	97.65	14 04
17.73	3	50.8	97.69	11 20
17.40	3	50.9	97.73	4 23
17.47	3	51.0	97.74	9 17
17.41	4	51.0	97.75	3 09
17.53	3	51.0	97.75	1 28
17.50	3	51.0	97.76	13 25
17.87	3	51.0	97.76	11 04
17.05	3	51.1	97.78	12 45
18.37	3	51.2	97.80	4 27
18.25	3	51.3	97.83	7 10
18.18	3	51.4	97.85	1 38
18.60	3	51.6	97.89	6 29
17.98	3	51.6	97.90	10 10
18.31	3	51.8	97.95	2 04
17.73	3	51.9	97.97	11 39
17.24	4	52.0	97.99	9 33
16.41	7	52.0	98.01	5 34
17.32	3	52.2	98.04	1 19

361—420

Mag.		α 39m	x	y−10′
		s	′	′ ″
16.69	4	52.2	98.05	10 04
18.45	3	52.4	98.09	5 38
18.36	3	52.4	98.10	8 30
17.96	3	52.5	98.13	9 25
17.40	4	52.6	98.14	7 12
17.41	3	52.6	98.15	10 10
17.39	3	52.9	98.23	14 04
17.54	3	52.9	98.23	6 30
18.21	3	53.0	98.24	3 16
16.47	8	53.0	98.26	11 01
17.43	3	53.2	98.29	11 29
17.74	3	53.2	98.30	3 34
17.70	3	53.4	98.34	9 00
18.36	1	53.6	98.39	8 04
18.46	3	53.6	98.41	13 32
16.44	6	53.8	98.44	14 49
18.34	3	53.8	98.45	7 51
16.61	8	53.9	98.48	3 44
18.26	3	54.4	98.59	2 57
18.66	3	54.4	98.60	4 50
15.15	12	54.8	98.69	6 39
17.46	3	54.8	98.69	10 38
17.64	3	54.9	98.72	13 35
17.19	3	55.0	98.76	1 43
16.50	7	55.2	98.79	9 07
18.15	3	55.5	98.87	13 38
17.12	5	55.6	98.89	12 51
17.55	4	55.6	98.90	6 34
15.43	10	55.7	98.93	9 52
14.28	13	55.8	98.96	13 34
17.47	3	56.1	99.03	10 37
18.02	3	56.1	99.03	6 15
15.01	12	56.2	99.04	9 06
18.30	3	56.2	99.04	9 17
16.97	5	56.2	99.04	1 43
16.87	8	56.2	99.05	5 10
18.47	3	56.2	99.06	10 03
18.73	3	56.6	99.16	7 07
17.95	3	56.8	99.19	14 44
16.98	5	57.0	99.24	14 58
17.52	3	57.1	99.27	9 16
16.96	7	57.1	99.27	8 29
18.32	3	57.2	99.29	4 11
18.47	3	57.2	99.30	10 47
17.84	3	57.3	99.33	6 51
18.42	3	57.8	99.44	1 07
17.77	3	57.8	99.46	10 02
18.14	3	57.9	99.47	6 17
18.50	2	58.1	99.52	13 30
13.76	11	58.2	99.54	12 04
17.43	3	58.4	99.59	1 22
16.73	7	58.4	99.60	6 15
18.09	3	58.6	99.64	12 33
17.38	3	58.8	99.69	13 52
18.44	3	58.8	99.69	1 00
17.31	5	58.8	99.70	5 37
17.50	3	59.0	99.74	10 17
17.73	3	59.2	99.79	14 04
17.81	3	59.6	99.91	13 48
18.44	3	59.6	99.91	3 56

421—480

Mag.		α 39m	x	y−10′
		s	′	′ ″
17.58	3	59.7	99.92	7 06
18.46	3	59.7	99.93	4 33
17.43	3	59.8	99.94	2 26
17.39	3	59.8	99.95	8 19
18.03	3	59.8	99.96	12 43
17.28	4	59.9	99.97	4 11
17.18	6	60.2	0.06	5 56
17.59	3	60.2	0.06	1 43
17.54	3	60.4	0.10	4 28
16.06	8	60.6	0.15	3 11
17.10	3	60.6	0.15	11 30
16.68	8	60.7	0.18	3 36
18.44	3	60.8	0.19	0 26
16.75	8	60.9	0.22	0 13
17.18	2	60.9	0.23	9 28
16.55	7	60.9	0.23	6 38
16.64	6	61.0	0.24	12 57
17.18	5	61.0	0.25	0 38
18.50	3	61.2	0.30	4 25
18.36	3	61.4	0.34	10 49
17.56	3	61.4	0.35	13 20
18.14	3	61.4	0.35	5 30
16.03	10	61.4	0.35	3 14
16.96	6	61.6	0.39	4 48
16.42	8	61.7	0.42	12 29
18.31	3	62.0	0.51	7 09
15.94	8	62.2	0.55	11 32
16.00	10	62.2	0.56	11 02
17.95	1	62.4	0.59	7 19
15.77:	1	62.4	0.60	11 30
15.06	12	62.6	0.64	0 34
18.31	2	62.6	0.65	4 10
16.96	3	62.6	0.66	11 11
15.56	10	62.8	0.69	5 35
18.10	3	62.9	0.73	7 05
15.28	9	63.0	0.75	13 43
15.30	10	63.2	0.79	13 35
16.38	8	63.2	0.81	13 38
17.49	3	63.4	0.84	13 46
17.47	3	63.4	0.86	12 48
13.92	14	63.6	0.89	3 33
18.52	2	63.6	0.90	11 20
16.26	8	63.6	0.91	6 17
17.53	3	63.7	0.93	6 39
18.22	3	63.8	0.94	13 33
15.53	9	63.9	0.97	12 30
17.31	3	63.9	0.98	9 52
18.27	3	64.0	1.00	0 54
17.46	3	64.2	1.04	9 51
17.17	3	64.2	1.04	14 43
17.55	3	64.3	1.07	7 50
18.28	3	64.5	1.13	5 03
18.60	3	64.5	1.13	10 18
17.39	3	64.6	1.15	14 14
17.16	5	64.6	1.16	7 36
18.10	3	64.7	1.18	13 05
17.82	3	64.8	1.20	12 43
17.51	3	65.0	1.25	0 56
18.22	3	65.4	1.35	5 31
17.48	3	65.5	1.37	3 56

481—540

Mag.		α 40m	x	y−10′
		s	′	′ ″
18.27	3	5.5	1.38	9 07
17.81w	2	5	1.4	4 24
16.97	3	5.7	1.43	12 26
17.64	3	5.8	1.44	1 25
18.05	3	5.8	1.45	2 47
17.91	3	5.8	1.45	13 11
18.18	3	5.9	1.47	10 52
16.93	7	6.0	1.50	10 58
17.54	3	6.2	1.54	10 04
15.23	11	6.4	1.59	11 43
18.25	3	6.5	1.63	10 36
17.03	5	6.8	1.69	10 36
17.46	3	6.9	1.73	8 17
17.56	3	7.0	1.75	13 36
18.13	3	7.0	1.76	9 26
18.44	3	7.1	1.77	0 43
18.46	3	7.2	1.79	8 31
16.95	8	7.2	1.80	1 54
16.65	8	7.4	1.84	1 29
18.42	3	7.4	1.84	13 32
18.37	3	7.5	1.88	8 29
16.91	8	7.6	1.89	2 08
18.06	3	7.7	1.92	6 48
17.93	3	7.9	1.97	9 18
17.36	3	7.9	1.97	10 22
16.60	8	7.9	1.98	10 58
17.08	3	8.0	2.00	8 18
13.78	12	8.0	2.01	7 43
15.11	11	8.1	2.02	3 29
17.19	3	8.2	2.04	8 38
17.31	3	8.3	2.07	3 27
17.35	3	8.5	2.13	2 05
18.07	1	8.6	2.14	14 30
18.25	3	8.6	2.16	1 25
18.25	3	8.6	2.16	7 03
17.02	8	8.7	2.18	7 58
17.81	3	8.7	2.18	5 55
18.47	3	8.7	2.18	7 14
18.44	3	8.7	2.18	12 13
16.43	7	8.9	2.22	11 43
18.22	1	8.9	2.23	1 43
17.26	3	9.0	2.24	14 11
17.01	5	9.0	2.25	9 35
17.12	5	9.4	2.35	12 53
18.34	3	9.5	2.37	6 38
18.22	1	9.6	2.39	7 25
15.88	9	9.7	2.43	9 25
17.27	3	9.8	2.45	14 25
18.52	3	9.9	2.47	9 15
17.56	3	9.9	2.47	6 22
17.58	3	10.0	2.49	6 40
16.17	8	10.1	2.53	6 11
15.73	9	10.4	2.59	7 24
18.11	3	10.4	2.59	10 12
15.66	10	10.6	2.65	7 22
18.13	3	10.6	2.65	9 53
17.96	3	10.6	2.66	5 09
18.15	1	10.7	2.67	11 47
17.08	6	10.7	2.68	11 21
18.31	3	10.9	2.73	10 52

541—543

Mag.		α 40m	x	y−10′
		s	′	′ ″
17.50	3	11.6	2.91	11 57
17.64	3	11.7	2.93	2 30
17.86	3	11.8	2.94	12 07

25 prec. + 76.ˢ8, − 0′ 43″

1s—60s					61s—120s					121s—180s					181s—240s					241s—300s				
Mag.		α 38^{m}	x	y − 10′	Mag.		α 39^{m}	x	y − 10′	Mag.		α 39^{m}	x	y − 10′	Mag.		α 39^{m}	x	y − 10′	Mag.		α 39^{m}	x	y − 10′
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
17.03	2	58	84.5	− 4.0	18.30	2	7	86.7	+ 0.5	17.17	2	13	88.2	+ 1.7	17.73	2	35	93.8	+ 0.7	17.26	4	47	96.8	+ 3.2
18.49	2	58	84.6	− 6.4	18.02	2	7	86.8	−11.4	17.63	2	13	88.2	+ 2.6	18.15	2	35	93.8	+ 3.2	16.66	7	47	96.8	+ 3.6
15.54	8	59	84.8	− 7.8	17.86	2	7	86.8	−10.4	17.53	2	14	88.4	+ 1.0	17.55	2	36	93.9	−16.4	16.58	7	47	96.8	+ 5.4
15.93	8	60	84.9	− 6.4	18.05	2	7	86.8	− 9.0	17.35	2	14	88.6	+ 2.7	18.47	2	36	93.9	−16.0	18.51	2	48	96.9	+ 3.9
14.02	12	60	84.9	− 4.4	18.43	2	7	86.8	− 8.9	18.15	2	15	88.7	+ 0.8	17.26	2	36	93.9	+ 5.6	18.38	2	48	97.0	−15.6
18.45	2	60	85.0	− 3.7	16.86	4	7	86.8	− 7.1	18.51	2	15	88.7	+ 2.6	18.25	2	36	94.0	+ 1.0	17.49	2	48	97.1	−15.6
18.68	2	60	85.0	− 2.8	18.20	2	7	86.8	− 3.2	17.66	2	15	88.8	+ 2.2	17.91	2	36	94.0	+ 1.4	18.51	2	49	97.2	−16.0
16.53	7	60	85.1	− 8.8	18.41	2	7	86.8	− 3.0	15.67	8	15	88.8	+ 3.4	16.71	2	36	94.0	+ 4.6	16.44	7	49	97.2	−15.4
17.03	4	60	85.1	− 6.1	17.92	2	7	86.8	− 1.4	17.02	2	16	88.9	+ 1.0	18.51	2	36	94.0	+ 5.3	17.63	2	49	97.2	+ 3.0
16.94	2	60	85.1	− 5.0	17.66	2	7	86.8	+ 0.6	17.81	2	16	89.0	+ 1.7	18.28	2	36	94.1	+ 1.4	17.57	2	50	97.4	−16.0
17.36	2	60	85.1	− 2.4	15.72	8	8	86.9	− 8.9	16.53	7	17	89.3	+ 3.2	16.07	7	37	94.2	−16.4	17.79	2	50	97.4	−15.1
16.72	6	60	85.1	− 1.8	17.02	4	8	86.9	− 6.6	17.36	2	18	89.4	+ 0.3	18.14	2	37	94.2	−16.0	13.62	12	49	97.4	+ 0.2
17.92	2	61	85.2	− 9.6	14.76	9	8	87.0	− 9.0	16.85	4	18	89.4	+ 0.8	18.41	2	37	94.2	+ 3.8	18.09	2	50	97.4	+ 4.4
17.11	2	61	85.2	− 8.8	18.28	2	8	87.0	− 3.4	15.48	8	18	89.6	+ 1.6	18.36	2	37	94.3	+ 2.1	16.01	8	50	97.6	+ 4.3
16.33	7	61	85.2	− 5.8	13.56	13	8	87.0	+ 0.4	17.40	2	18	89.6	+ 2.0	15.62	8	37	94.3	+ 4.7	18.30	2	50	97.6	+ 4.6
16.78	6	61	85.2	− 4.3	17.99	2	8	87.1	− 2.4	17.40	2	19	89.6	+ 4.0	16.08	5	38	94.4	−15.4	15.86	8	50	97.6	+ 5.3
16.83	4	61	85.2	− 2.2	17.04	4	9	87.2	−12.5	17.61	2	19	89.8	−15.2	14.95	10	38	94.4	+ 1.7	17.15	2	51	97.8	−16.4
16.10	7	62	85.4	−10.3	18.21	2	9	87.2	−11.6	17.25	2	19	89.8	+ 2.2	18.18	2	38	94.4	+ 3.8	18.39	2	51	97.8	+ 1.8
18.29	2	62	85.4	− 9.7	18.53	2	9	87.2	− 5.0	17.00	2	20	90.0	+ 2.2	16.93	2	38	94.4	+ 5.0	18.31	2	51	97.8	+ 3.2
17.87	2	62	85.4	− 9.4	18.17	2	9	87.2	− 4.3	18.23	2	20	90.1	+ 2.7	16.91	4	38	94.5	−16.0	17.77	2	51	97.8	+ 5.3
14.60	9	62	85.4	− 6.8	17.15	2	9	87.2	− 2.6	16.08	8	21	90.2	+ 0.6	14.99	6	39	94.7	+ 3.4	18.05	2	52	98.0	−16.6
18.43	2	62	85.4	− 6.6	17.06	2	9	87.2	− 1.2	17.05	2	21	90.2	+ 4.2	15.87	3	39	94.7	+ 3.6	16.60	7	52	98.0	−15.5
17.96	2	62	85.4	− 5.5	18.46	2	9	87.2	− 0.6	18.15	2	21	90.3	+ 3.0	17.89	2	39	94.8	−16.5	18.53	2	52	98.0	+ 1.4
15.09	8	62	85.4	− 4.1	17.39	2	9	87.3	− 8.8	18.06	2	24	91.0	−15.2	18.39	2	39	94.8	−16.1	16.37	7	52	98.1	+ 2.7
18.46	2	63	85.6	− 9.8	18.40	2	9	87.4	−13.0	17.57	2	24	91.0	+ 0.7	16.40	5	39	94.8	−15.4	17.45	2	53	98.2	+ 0.4
18.13	2	63	85.6	− 9.6	18.63	2	9	87.4	−11.0	17.85	2	24	91.1	+ 2.0	16.69	7	39	94.8	0.0	18.40	2	53	98.2	+ 1.0
17.03	2	62	85.6	− 9.3	16.38	7	10	87.4	−10.6	17.04	2	25	91.2	−15.8	18.56	2	40	95.0	−15.5	17.00	4	53	98.2	+ 4.3
18.14	2	63	85.7	−10.0	17.93	2	10	87.4	−10.3	17.21	2	25	91.3	0.0	15.56	8	40	95.1	+ 4.5	16.85	2	53	98.2	+ 5.6
18.19	2	63	85.7	− 9.6	17.33	2	10	87.4	−10.1	18.05	2	25	91.3	+ 1.6	17.25	2	40	95.1	+ 5.2	17.86	2	53	98.3	+ 5.7
17.25	2	63	85.7	− 6.4	16.08	7	10	87.4	− 8.0	18.41	2	26	91.4	−15.2	16.87	6	41	95.2	−16.0	16.91	4	54	98.4	−16.4
18.33	2	63	85.7	− 2.2	15.41	8	10	87.4	− 7.6	16.64	7	26	91.6	+ 1.2	17.21	2	41	95.2	+ 1.8	15.27	8	53	98.4	+ 2.3
18.33	2	63	85.7	− 2.0	15.19	9	9	87.4	− 5.7	15.07	8	26	91.6	+ 4.2	17.05	2	41	95.2	+ 5.3	16.91	4	54	98.4	+ 4.6
18.46	2	63	85.8	− 1.4	17.67	2	10	87.4	− 5.4	16.54	5	27	91.7	+ 0.3	16.25	7	41	95.3	−16.0	17.19	2	54	98.6	−16.0
18.18	2	63	85.8	− 1.2	17.13	2	10	87.4	− 5.2	17.33	2	27	91.7	+ 1.6	18.01	2	42	95.4	−16.5	16.98	4	54	98.6	+ 4.4
17.17	2	64	85.9	− 8.4	18.37	2	10	87.4	− 3.6	16.87	5	27	91.8	+ 0.2	17.21	2	42	95.4	+ 0.9	18.44	2	54	98.6	+ 4.7
16.73	5	64	85.9	− 6.4	17.45	2	10	87.4	− 2.1	17.87	2	27	91.8	+ 2.6	18.22	2	42	95.4	+ 4.6	18.67	2	55	98.7	+ 1.4
16.93	4	64	85.9	− 3.8	18.51	2	10	87.4	− 1.5	17.55	2	27	91.8	+ 3.4	18.05	2	42	95.4	+ 5.2	17.26	4	55	98.7	+ 1.8
15.52	8	64	85.9	− 2.0	15.44	8	10	87.4	+ 0.1	17.09	2	27	91.8	+ 3.9	18.40	2	42	95.5	−16.4	16.56	5	56	98.9	−16.0
16.64	7	64	86.0	− 7.4	17.00	2	10	87.5	− 4.3	16.73	6	28	92.0	−15.0	16.49	7	42	95.5	+ 2.9	16.73	7	56	98.9	+ 1.1
16.98	4	64	86.0	− 6.8	17.23	2	11	87.6	−13.2	18.34	2	28	92.1	+ 4.0	16.84	6	42	95.6	−16.2	18.04	2	56	98.9	+ 5.0
17.96	2	64	86.1	− 3.3	17.44	2	11	87.6	−11.1	17.47	2	29	92.2	−15.4	18.39	2	43	95.7	−15.2	18.54	2	56	99.0	−15.8
17.96	2	65	86.2	− 9.0	17.29	2	10	87.6	− 9.9	16.34	6	29	92.2	+ 0.2	15.53	8	43	95.7	+ 1.0	16.99	2	56	99.0	+ 3.2
15.78	8	65	86.2	− 3.4	18.45	2	10	87.6	− 7.2	17.83	2	29	92.3	+ 1.6	17.05	2	43	95.7	+ 2.4	18.57	2	57	99.2	+ 0.5
16.88	4	65	86.3	−10.2	17.65	2	10	87.6	− 3.4	16.61	5	29	92.3	+ 3.4	18.59	2	43	95.8	−15.6	18.32	2	57	99.2	+ 1.1
18.69	2	65	86.3	− 6.0	15.06	8	10	87.6	− 0.6	18.13	2	29	92.4	−16.0	17.51	2	44	95.9	+ 2.3	16.64	7	58	99.4	−15.4
16.68	5	65	86.3	− 5.8	13.47	13	10	87.6	+ 0.6	17.07	2	30	92.5	+ 2.7	16.16	7	44	95.9	+ 3.9	17.52	2	58	99.4	−15.0
18.23	2	65	86.4	− 9.8	16.67	3	10	87.6	+ 2.0	16.71	4	30	92.6	−16.1	18.48	2	44	96.0	0.0	18.44	2	58	99.5	−15.3
16.83	2	66	86.4	− 9.1	15.22	9	11	87.7	−12.0	18.34	2	30	92.6	+ 4.6	16.83	4	44	96.0	+ 4.7	18.63	2	58	99.6	+ 3.0
17.87	2	66	86.4	− 8.6	17.41	2	11	87.7	−10.3	18.07	2	31	92.7	+ 0.4	15.41	8	44	96.1	+ 5.2	16.18	6	58	99.6	+ 5.2
18.54	2	66	86.4	− 5.1	18.35	2	11	87.7	− 9.6	17.33	2	31	92.8	−15.6	17.03	5	45	96.2	−16.0	18.76	2	59	99.7	+ 2.9
18.13	2	66	86.4	− 4.3	18.19	2	11	87.7	− 6.2	16.78	6	31	92.8	−15.4	17.18	2	45	96.2	+ 1.0	12.38	13	59	99.8	+ 3.9
17.53	2	66	86.4	− 0.2	17.13	4	11	87.8	−12.5	17.25	2	31	92.8	+ 2.6	16.84	7	45	96.2	+ 1.3	18.24	2	59	99.8	+ 4.2
13.51	11	66	86.4	+ 0.2	18.59	2	11	87.8	−11.7	17.79	2	32	92.9	+ 3.2	18.39	2	45	96.2	+ 2.4	18.58	2	59	99.8	+ 4.6
16.69	5	66	86.6	−10.3	17.23	2	11	87.8	− 1.2	15.45	8	32	93.1	−15.6	16.59	5	45	96.3	+ 4.7	14.75	8	60	0.0	+ 4.8
17.13	2	66	86.6	− 8.0	16.83	2	11	87.8	+ 2.0	15.60	8	33	93.2	+ 5.0	17.60	2	46	96.4	−16.2	18.34	2	60	0.1	+ 4.4
16.43	7	67	86.6	− 7.4	18.21	2	12	87.9	− 9.9	16.95	4	34	93.4	+ 2.0	17.26	3	46	96.4	+ 2.0	18.46	2	61	0.2	−15.6
16.23	6	66	86.6	− 4.7	17.96	2	12	87.9	− 9.0	18.15	2	34	93.6	+ 2.2	17.55	2	46	96.5	+ 0.4	18.19	2	61	0.3	+ 0.7
16.39	7	66	86.6	− 1.6	16.93	2	12	87.9	− 3.8	17.07	2	34	93.6	+ 4.2	17.82	2	46	96.5	+ 4.7	16.66	7	61	0.3	+ 1.6
15.23	9	67	86.7	− 7.4	17.89	2	12	87.9	+ 0.2	17.37	2	35	93.7	+ 1.2	18.55	2	47	96.8	−15.6	17.13	2	61	0.3	+ 3.8
17.81	2	67	86.7	− 2.4	17.03	2	12	87.9	+ 2.4	17.08	2	35	93.7	+ 4.7	18.06	2	47	96.8	+ 0.7	18.45	2	62	0.4	−15.7

25 prec. + $76^{s}.8$, − 0′ 45″

17^{h}

Area 109. Supplementary Stars

+ 0°, − 0°

301s—330s					331s—360s					361s—390s					391s—420s					421s—443s				
Mag.		α 40^{m}	x	$y-10'$	Mag.		α 40^{m}	x	$y-10'$	Mag.		α 40^{m}	x	$y-10'$	Mag.		α 40^{m}	x	$y-10'$	Mag.		α 40^{m}	x	$y-10'$
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
18.17	2	2	0.4	+ 0.4	17.20	2	13	3.2	− 4.8	18.31	2	16	3.9	− 8.6	18.11	2	18	4.6	+ 1.2	17.47	2	23	5.8	− 5.3
15.85	8	2	0.4	+ 1.3	17.15	2	13	3.2	+ 0.2	18.36	2	16	3.9	− 5.5	18.11	2	19	4.7	−11.2	17.82	2	23	5.8	− 4.6
17.22	2	3	0.8	+ 1.6	18.57	2	13	3.3	−12.4	15.95	7	16	4.0	−11.0	17.03	2	19	4.7	−10.2	17.75	2	23	5.8	− 0.9
12.59	14	3	0.8	+ 2.6	17.68	2	13	3.3	− 9.5	17.35	2	16	4.0	− 9.6	17.53	2	19	4.7	− 2.6	18.00	2	24	5.9	− 4.6
17.84	2	5	1.2	+ 0.8	18.42	2	13	3.3	− 9.0	18.30	2	16	4.0	+ 1.4	18.08	2	19	4.8	− 8.0	17.14	4	24	6.0	− 8.8
18.54	2	5	1.2	+ 3.4	18.33	2	13	3.3	− 7.6	17.90	2	16	4.1	− 2.4	16.66	5	19	4.8	− 6.6	17.33	2	24	6.0	− 5.7
18.54	2	6	1.4	+ 2.6	16.04	3	13	3.3	− 7.4	15.51	8	17	4.2	−13.0	15.75	8	19	4.8	+ 1.4	16.75	5	24	6.0	− 2.1
17.44	2	7	1.7	+ 1.2	17.23	3	13	3.3	− 5.0	17.40	2	17	4.2	− 8.4	18.28	2	20	4.9	− 9.2	18.38	2	24	6.1	− 7.4
18.36	2	7	1.8	−14.9	17.19	2	13	3.3	+ 2.0	18.38	2	17	4.2	− 5.2	18.31	2	20	4.9	− 8.3	18.18	2	25	6.2	− 9.4
17.27	2	7	1.8	+ 1.1	16.38	3	14	3.4	− 7.3	16.70	7	17	4.2	− 3.6	18.39	2	20	4.9	− 7.9	18.37	2	25	6.2	− 9.0
16.98	2	7	1.8	+ 1.2	17.49	2	14	3.4	− 4.4	18.16	2	17	4.2	− 2.6	18.25	2	20	4.9	− 6.9	18.10	2	25	6.2	− 6.4
17.79	2	7	1.8	+ 3.4	18.38	2	14	3.4	− 4.0	16.78	7	17	4.2	− 2.0	17.88	2	20	5.0	−12.0	18.61	2	25	6.2	− 4.6
17.81	2	8	1.9	+ 0.5	17.22	2	14	3.4	− 3.2	17.42	2	17	4.2	− 1.0	16.33	7	20	5.0	−10.6	17.97	2	26	6.4	− 8.9
17.70	2	9	2.2	+ 0.9	17.70	2	14	3.4	− 1.6	18.47	2	17	4.3	−12.9	15.22	9	20	5.0	− 5.4	18.36	2	26	6.4	− 6.6
12.21	14	9	2.3	+ 1.7	17.31	2	14	3.4	+ 1.8	18.47	2	17	4.3	+ 1.8	17.90	2	20	5.0	+ 0.2	17.21	4	26	6.4	− 1.8
15.27	9	10	2.5	+ 3.7	18.47	2	14	3.5	− 0.4	12.78	14	18	4.4	−12.4	17.42	2	20	5.1	+ 0.8	16.54	5	27	6.6	− 6.0
17.35	2	10	2.6	+ 1.0	18.33	2	14	3.5	− 0.3	17.41	2	18	4.4	−11.0	18.63	2	21	5.2	− 9.6	17.02	2	27	6.6	− 5.3
16.98	2	11	2.7	+ 1.2	18.25	2	14	3.6	−13.3	17.18	2	18	4.4	− 1.1	18.06	2	21	5.2	− 6.6	18.51	2	26	6.6	− 4.8
17.27	2	11	2.8	+ 0.4	16.15	8	14	3.6	−12.8	14.78	9	18	4.4	− 0.7	16.85	5	21	5.3	−10.0	15.05	9	26	6.6	− 3.2
18.47	2	12	3.0	− 9.3	16.36	8	14	3.6	− 9.5	18.13	2	18	4.5	−10.2	18.28	2	22	5.4	− 8.4	17.22	2	27	6.8	− 5.3
17.27	2	12	3.0	− 8.2	17.85	2	14	3.6	− 8.6	17.84	2	18	4.5	− 7.2	18.50	2	22	5.4	− 8.2	17.06	4	27	6.8	− 4.4
18.12	2	12	3.0	− 7.2	17.95	2	14	3.6	− 7.4	18.37	2	18	4.5	− 3.4	18.43	2	22	5.4	− 7.8	16.81	2	28	6.9	− 8.0
17.31	2	12	3.0	− 3.0	17.06	4	14	3.6	− 4.8	13.86	8	18	4.5	0.0	15.03	9	22	5.4	− 3.6	16.97	2	28	6.9	− 3.7
16.39	7	12	3.0	+ 2.6	15.75	8	15	3.7	− 3.8	18.23	2	18	4.5	+ 1.5	13.91	10	21	5.4	− 3.4					
18.35	2	12	3.1	−11.6	16.85	7	15	3.7	+ 2.1	18.13	2	18	4.6	−12.3	18.59	2	22	5.6	− 1.4					
15.92	8	12	3.1	− 5.0	16.79	5	15	3.8	− 7.1	17.41	2	18	4.6	− 5.4	17.44	2	23	5.6	− 1.2					
16.94	2	12	3.1	+ 0.8	18.15	2	15	3.8	− 5.4	13.62	11	18	4.6	− 5.0	17.06	2	23	5.6	− 0.4					
15.63	8	13	3.2	−13.1	17.78	2	15	3.8	+ 1.7	17.11	4	18	4.6	− 2.7	16.23	7	22	5.6	+ 0.2					
16.36	7	13	3.2	−12.6	16.76	7	16	3.9	− 9.4	16.98	4	18	4.6	− 1.2	14.02	12	23	5.7	−10.7					
17.20	2	13	3.2	− 8.9	16.81	7	16	3.9	− 9.2	17.81	2	18	4.6	− 0.6	17.33	2	23	5.7	− 5.6					

25 prec. + $76^{s}.8$, − 0′ 43″

18^{h}

Area 110. Center for 1900: 18^{h} 37^{m} 0° 0′ (15′ × 15′)

− 0°, + 0°

1—20					21—40					41—60					61—80					81—100				
Mag.		α 36^{m}	x	y	Mag.		α 36^{m}	x	y	Mag.		α 37^{m}	x	y	Mag.		α 37^{m}	x	y	Mag.		α 37^{m}	x	y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
18.31	3	40.3	95.08	+ 7 34	19.09	1	52.3	98.07	− 2 13	18.52	3	4.3	1.07	− 2 44	17.83	3	14.8	3.69	+ 8 37	16.15	10	26.3	6.58	− 0 28
19.09	1	40.9	95.22	+ 8 40	11.46w	14	53.2	98.30	− 2 25	18.98	1	4.6	1.16	− 3 30	19.19	1	14.8	3.69	− 0 44	18.14	3	26.4	6.60	− 3 21
17.05	9	41.6	95.41	+ 3 16	19.30	1	54.2	98.55	+ 3 06	19.40	1	4.8	1.21	+ 1 59	18.42	3	15.8	3.94	− 0 35	18.47	3	26.5	6.62	+ 6 16
18.67	1	42.7	95.68	− 2 35	19.19	1	54.8	98.69	+ 0 20	15.88	9	6.3	1.58	+ 4 29	18.36	1	16.0	4.00	− 2 09	18.32	3	26.6	6.66	+ 3 10
18.98	1	43.2	95.79	− 1 03	19.19	1	56.2	99.05	+ 0 52	18.71	2	6.6	1.66	+ 1 36	17.91	3	16.4	4.09	− 3 58	19.30	1	27.4	6.84	+ 7 30
16.74	9	43.6	95.89	+ 9 04	18.36	1	56.3	99.07	− 2 03	18.42	3	7.1	1.78	+ 7 25	19.50	1	19.2	4.81	+ 4 34	17.13	4	27.6	6.90	+ 9 20
13.13	17	43.8	95.96	− 0 23	19.30	1	56.8	99.20	+ 6 34	18.31	3	8.2	2.05	− 3 54	16.90	9	19.8	4.94	+ 8 04	16.26	9	27.8	6.95	− 2 13
12.97	15	45.0	96.25	+ 8 27	18.98	1	57.2	99.29	+ 0 24	15.25	11	8.6	2.14	+ 2 15	19.08	2	20.2	5.05	+ 3 58	15.06	12	28.0	6.99	− 2 22
18.07	3	45.0	96.26	− 3 03	18.56	3	57.9	99.48	− 0 39	16.39	9	8.6	2.16	+ 7 37	18.78	1	21.1	5.27	− 3 22	18.42	2	28.2	7.06	+ 1 32
18.98	1	45.4	96.34	− 3 45	17.00	9	58.2	99.56	+ 9 36	18.39	3	9.5	2.37	+ 9 34	18.43	3	21.7	5.43	− 0 44	19.09	1	28.4	7.09	− 3 37
17.77	3	45.5	96.37	+ 8 31	19.19	1	58.5	99.62	− 3 02	11.70w	15	10.0	2.51	+ 5 23	19.19	1	22.1	5.52	− 3 22	19.30	1	28.4	7.10	+ 0 43
16.79	9	47.7	96.93	+ 7 22	18.68	3	59.4	99.84	+ 9 15	17.16	8	10.5	2.62	− 0 48	19.09	1	23.8	5.94	− 2 18	15.23	12	28.7	7.17	+ 9 13
15.54	12	48.2	97.04	+ 4 16	15.19	12	60.0	0.00	+ 0 24	10.31w	13	10.6	2.65	+ 3 33	17.19	7	24.1	6.03	− 1 59	17.05	8	29.8	7.45	− 1 48
18.46	1	48.7	97.18	− 0 23	19.09	1	60.4	0.10	− 4 39	15.78	10	10.9	2.73	+ 7 17	18.31	3	24.1	6.03	+ 1 27	18.25	3	30.5	7.62	− 3 35
17.59	3	48.7	97.18	− 2 00	16.48	9	61.2	0.30	− 2 54	14.20	13	11.0	2.76	− 0 41	16.56	9	24.2	6.06	− 3 23	18.32	3	32.0	8.00	+ 1 23
18.22	3	49.9	97.48	+ 7 19	19.40 ✓	1	61.5	0.37	+ 4 29	12.69	13	11.8	2.95	+ 2 37	17.78	3	24.6	6.16	− 2 31	18.43	3	32.5	8.11	− 0 14
18.35	3	50.7	97.68	+ 9 22	18.80	2	62.2	0.54	+ 6 23	16.98	9	13.6	3.41	− 3 42	18.30	3	25.0	6.25	− 0 29	18.38	3	32.9	8.22	+ 4 41
18.75	3	50.8	97.70	+ 3 04	16.73	9	62.2	0.55	+ 7 57	19.50	1	14.0	3.50	+ 2 25	19.30	1	25.5	6.37	+ 6 26	18.28	3	33.0	8.24	+ 4 54
18.46	1	50.8	97.71	+ 0 34	18.24	2	62.4	0.60	+ 3 39	17.35	5	14.4	3.59	+ 9 44	18.14	3	25.6	6.39	− 1 51	13.53	17	33.0	8.24	+ 0 19
19.09	1	51.1	97.77	− 1 36	17.73	3	63.6	0.91	+ 6 53	19.59	1	14.5	3.62	+ 3 30	18.00	3	26.2	6.54	− 3 08	15.57	12	33.3	8.33	+ 3 21

25 prec. + $76^{s}.8$, + 1′ 21″

18^{h} Area 110 − 0°, + 0°

101—107				
Mag.		α 37^{m}	x	y
		s	′	′ ″
18.88	1	33.9	8.47	+ 9 20
18.98	1	34.4	8.59	+ 5 18
17.68	3	35.2	8.80	+ 5 01
18.46	1	37.4	9.37	− 4 26
12.82	16	37.8	9.44	+ 2 14
18.41	3	37.8	9.46	+ 5 03
18.17	3	39.4	9.84	+ 5 34

1*s*—20*s*				
Mag.		α 36^{m}	x	y
		s	′	′
18.02	2	25	91.2	+ 4.8
16.09	7	27	91.8	+ 3.4
17.97	2	33	93.3	+ 0.1
16.94	6	37	94.4	+11.4
14.99	10	38	94.6	+ 9.6
18.31	2	39	94.7	+ 0.3
17.09	4	39	94.8	+ 2.4
16.74	7	45	96.4	+10.6
18.21	2	46	96.6	+12.3
18.21	2	48	97.0	+12.4
18.09	2	49	97.2	− 6.6
18.14	2	49	97.4	− 6.6
18.07	2	52	98.0	+11.0
18.07	2	53	98.2	− 5.8
18.25	2	55	98.6	− 5.6
17.09	4	55	98.7	+12.8
16.64	7	56	99.0	+10.4
18.05	2	58	99.4	+12.2
16.75	7	59	99.7	+12.4
18.33	2	60	99.9	+12.4

21*s*—40*s*				
Mag.		α 37^{m}	x	y
		s	′	′
16.87	6	0	0.0	− 6.8
17.72	2	0	0.0	+12.5
18.15	2	1	0.3	− 7.0
18.31	2	2	0.4	+12.6
17.98	2	4	1.0	+11.8
18.13	2	4	1.0	+13.0
17.95	2	4	1.1	− 6.4
18.05	2	5	1.2	− 6.2
17.95	2	5	1.4	+10.8
18.17	2	6	1.5	− 6.0
17.97	2	6	1.6	+10.4
18.19	2	8	2.0	− 5.8
17.15	4	8	2.1	+13.1
18.20	2	9	2.2	+10.0
16.79	7	9	2.2	+13.0
16.78	7	9	2.4	+15.2
16.93	7	13	3.2	+12.8
17.47	2	13	3.3	+14.6
18.20	2	16	3.9	+10.6
18.21	2	17	4.2	− 5.6

41*s*—60*s*				
Mag.		α 37^{m}	x	y
		s	′	′
18.34	2	17	4.3	+11.6
17.07	2	18	4.6	− 7.6
16.75	7	19	4.7	− 5.2
18.25	2	20	5.1	+10.7
16.90	6	22	5.4	− 7.0
17.45	2	23	5.7	− 6.8
17.71	2	23	5.8	− 6.9
18.17	2	25	6.2	− 7.2
18.47	2	40	9.9	+ 0.9
18.41	2	41	10.1	+ 1.4
16.80	7	41	10.2	+ 0.6
17.79	2	41	10.3	+ 9.8
12.79	14	42	10.4	− 0.8
18.47	2	43	10.6	+ 6.4
18.09	2	43	10.8	− 0.4
17.21	4	43	10.8	+ 1.4
14.44	12	43	10.8	+ 9.4
18.20	2	44	10.9	+10.3
17.02	4	44	11.0	− 1.3
16.97	5	45	11.2	− 1.4

61*s*—72*s*				
Mag.		α 37^{m}	x	y
		s	′	′
18.11	2	45	11.2	+ 3.4
18.25	2	45	11.2	+ 4.3
18.17	2	45	11.2	+ 6.3
14.61	11	45	11.4	+ 2.0
18.15	2	45	11.4	+10.4
18.19	2	46	11.6	− 1.8
17.71	2	46	11.6	+ 4.4
18.15	2	47	11.7	− 2.0
18.29	2	47	11.8	+ 1.9
18.33	2	48	12.1	+ 6.2
15.33	8	50	12.6	+ 1.5
15.35	10	51	12.8	− 0.4

25 prec. $+ 76^{\mathrm{s}}.8$, $+ 1' 21''$

19^{h} Area 111 Center for 1900: 19^{h} 33^{m} + 0° 10′ (15′ × 15′) + 0°

1—30				
Mag.		α 32^{m}	x	$y+10'$
		s	′	′ ″
18.35	3	44.1	96.02	8 15
16.34	8	44.1	96.02	4 07
18.36	2	44.2	96.04	0 42
17.51	3	44.2	96.05	1 00
17.38	3	44.2	96.06	14 34
18.28	3	44.2	96.06	12 38
18.67	3	44.3	96.08	8 06
17.40	3	44.3	96.08	3 38
18.78	3	44.4	96.09	12 14
17.80	3	44.4	96.11	10 07
18.08	2	44.5	96.12	2 08
17.18	5	44.6	96.16	2 38
15.22	11	44.6	96.16	10 17
17.40	3	44.6	96.16	14 33
17.01	6	44.7	96.17	7 01
15.28	11	44.8	96.19	13 40
18.53	3	44.8	96.20	12 35
15.93	9	44.8	96.21	13 10
18.58	3	44.8	96.21	8 41
16.98	5	44.9	96.22	0 46
17.13	7	45.0	96.25	4 44
18.04	3	45.0	96.25	6 57
18.25	3	45.0	96.25	9 25
17.22	6	45.0	96.26	9 59
17.41	3	45.1	96.27	6 46
16.84	8	45.1	96.28	8 02
15.75	9	45.2	96.29	13 26
18.70	3	45.2	96.30	11 35
16.59	7	45.3	96.32	6 17
17.33	3	45.3	96.32	4 00

31—60				
Mag.		α 32^{m}	x	$y+10'$
		s	′	′ ″
17.00	8	45.4	96.34	13 17
15.82	9	45.4	96.36	3 25
16.97	8	45.5	96.37	5 34
13.46	15	45.5	96.38	3 53
17.95	3	45.5	96.38	12 44
17.66	1	45.5	96.38	13 10
17.99	3	45.6	96.39	12 35
16.49	7	45 7	96.42	4 45
16.14	8	45.8	96.44	0 08
16.76	8	45.8	96.45	0 37
17.38	3	45.8	96.45	7 26
17.80	3	45.9	96.47	10 19
17.68	3	46.1	96.52	7 26
17.86	3	46.1	96.52	7 18
18.45	3	46.1	96.52	1 52
17.97	3	46.3	96.58	5 08
15.37	11	46.3	96.58	11 41
15.67	10	46.4	96.59	11 21
16.42	8	46.4	96.59	13 01
16.02	10	46.6	96.65	9 37
17.03	8	46.8	96.69	13 36
18.66	3	46.8	96.70	6 04
18.04	3	47.0	96.74	1 59
18.26	3	47.0	96.74	10 42
17.85	3	47.0	96.76	12 10
14.82	12	47.0	96.76	5 32
17.58d	1	47.2	96.79	13 05
17.50	3	47.2	96.81	8 37
18.07	3	47.3	96.83	7 56
17.06	8	47.4	96.84	14 08

61—90				
Mag.		α 32^{m}	x	$y+10'$
		s	′	′ ″
17.58	3	47.4	96.86	6 41
18.85	3	47.5	96.88	7 44
17.30	3	47.5	96.88	6 17
16.05	9	47.5	96.88	0 03
16.10	8	47.5	96.88	0 27
11.48w	10	47.5	96.88	12 59
17.36	3	47.6	96.89	14 30
15.83	9	47.8	96.94	4 04
18.10	3	47.8	96.95	10 08
17.21	5	47.8	96.96	11 19
15.92	10	47.8	96.96	0 31
18.47	3	47.9	96.97	3 47
17.12	7	47.9	96.97	12 18
18.59	3	47.9	96.97	8 42
18.67*	1	47.9	96.98	9 13
15.89	10	48.0	97.01	0 19
18.67	1	48.2	97.05	9 11
18.42	3	48.2	97.06	11 44
18.55	3	48.3	97.07	11 13
18.54	3	48.3	97.08	5 19
18.71	3	48.5	97.12	9 56
16.84	6	48.6	97.15	11 48
17.63	3	48.5	97.18	9 12
18.11	3	48.7	97.18	4 23
16.99	8	48.7	97.18	3 01
18.00w	2	49	97.2	13 06
18.40	3	48.8	97.20	4 12
15.79	10	49.0	97.24	12 41
17.65	3	49.0	97.25	5 28
17.32	5	49.0	97.26	11 28

91—120				
Mag.		α 32^{m}	x	$y+10'$
		s	′	′ ″
18.67	1	49.1	97.27	3 55
17.72	3	49.1	97.27	9 46
18.15	3	49.1	97.28	8 58
18.58	3	49.1	97.28	14 28
17.31	5	49.2	97.29	11 47
18.81	3	49.3	97.33	9 36
15.15	11	49.4	97.36	10 05
17.82	3	49.6	97.41	4 20
18.53	3	49.7	97.42	1 15
17.90	3	49.7	97.43	7 49
16.81	8	49.8	97.44	13 54
17.39	3	49.8	97.45	1 34
18.18	3	49.9	97.48	4 03
17.35	3	49.9	97.48	12 32
17.57	3	49.9	97.48	11 10
18.00	3	50.0	97.49	10 52
17.99	2	50.1	97.52	12 40
17.55	3	50.1	97.52	8 03
17.44	3	50.2	97.54	6 48
17.93	3	50.3	97.58	6 23
18.12	3	50.4	97.60	5 27
18.54	3	50.5	97.62	8 37
18.67	1	50.6	97.65	9 30
18.23	3	50.6	97.66	11 00
17.52	3	50.7	97.67	3 04
18.54	1	50.7	97.68	8 20
17.89	3	50.7	97.68	2 26
17.35	5	50.8	97.69	4 54
16.92	8	50.8	97.69	12 10
16.63	8	50.8	97.70	0 57

121—150				
Mag.		α 32^{m}	x	$y+10'$
		s	′	′ ″
17.27	5	50.8	97.70	11 58
17.82	3	50.8	97.71	9 38
18.17	3	50.9	97.72	13 21
18.12	3	50.9	97.73	4 26
16.87	8	51.0	97.75	2 11
18.50	3	51.0	97.76	9 41
17.50	3	51.0	97.76	11 07
18.48	2	51.1	97.77	14 59
16.03	9	51.1	97.77	0 19
18.54	3	51.1	97.78	6 29
16.94	6	51.1	97.78	10 00
17.34	5	51.2	97.81	8 27
18.07	3	51.3	97.83	5 49
15.54	10	51.3	97.83	13 28
18.34	3	51.4	97.84	12 42
17.57	3	51.4	97.85	6 44
17.58:	1	51.4	97.85	0 18
17.57	2	51.4	97.86	13 53
18.67	1	51.5	97.87	9 01
17.46	3	51.6	97.89	12 20
17.90	3	51.6	97.91	8 29
17.22	7	51.7	97.92	11 45
17.31	7	51.7	97.92	4 20
18.29	3	51.8	97.95	4 27
18.54	3	51.8	97.95	3 54
15.87	10	51.8	97.95	5 14
16.92	6	51.8	97.96	1 54
17.55	3	51.8	97.96	3 01
18.26	3	51.9	97.98	4 06
17.06	8	51.9	97.98	13 59

25 prec. $+ 76^{\mathrm{s}}.8$, $+ 3' 18''$

151—210			
Mag.	α 32^{m}	x	$y+10'$
	s	′	′ ″
18.11 3	52.0	97.99	7 00
17.71 3	52.0	98.00	10 23
17.43 5	52.2	98.04	7 28
17.97 3	52.2	98.05	7 12
17.50 3	52.2	98.06	13 46
18.54 1	52.3	98.08	0 58
16.14 8	52.4	98.09	10 23
15.36 12	52.4	98.09	7 11
17.55 3	52.4	98.11	8 22
18.33 3	52.5	98.12	9 53
17.97 3	52.6	98.15	10 08
17.67 3	52.6	98.15	2 50
17.97 3	52.6	98.16	6 31
18.45 3	52.7	98.17	13 00
18.06 3	52.7	98.18	1 45
17.49 3	52.7	98.18	9 24
17.19 8	52.7	98.18	7 38
18.54 3	52.8	98.19	6 15
17.42 5	52.8	98.19	8 32
18.51 3	52.8	98.19	13 34
17.49 3	52.8	98.21	6 22
16.23 8	52.9	98.23	8 07
16.59 8	53.0	98.24	14 15
17.65 3	53.2	98.28	3 45
17.14 8	53.2	98.29	12 13
18.10 3	53.2	98.31	3 08
18.43 3	53.4	98.35	4 52
16.14 9	53.4	98.35	8 16
18.61 2	53.6	98.39	11 45
16.81 8	53.6	98.39	4 41
17.61 3	53.6	98.41	14 20
15.29 11	53.7	98.42	1 54
17.13 3	53.7	98.43	13 40
18.64 3	53.8	98.46	9 19
16.55 8	53.8	98.46	9 53
18.58 3	53.8	98.46	9 14
17.46 5	53.9	98.48	5 20
18.55 3	53.9	98.48	12 39
17.06 8	53.9	98.48	11 56
17.11 8	54.1	98.52	7 39
18.15 3	54.2	98.55	8 36
18.58 2	54.2	98.55	4 21
18.75 3	54.2	98.55	5 00
18.14 3	54.2	98.56	7 31
18.67 1	54.3	98.57	9 18
17.19 7	54.3	98.58	5 46
17.04 8	54.3	98.58	13 47
15.03 12	54.3	98.58	0 24
17.99 3	54.4	98.60	4 48
18.43 3	54.4	98.60	12 25
18.34 3	54.5	98.63	8 00
17.82 3	54.7	98.68	0 54
17.53 3	54.7	98.68	5 07
16.77 8	54.8	98.69	7 41
18.58 2	54.8	98.70	11 59
18.71 2	54.9	98.72	4 47
18.54 1	54.9	98.73	12 53
18.43 3	55.0	98.76	13 32
17.32 7	55.1	98.78	5 50
18.66 3	55.2	98.80	3 40

211—270			
Mag.	α 32^{m}	x	$y+10'$
	s	′	′ ″
18.53 3	55.2	98.80	14 28
18.48 3	55.2	98.81	2 15
18.68 3	55.3	98.82	5 06
16.00 10	55.3	98.82	0 35
17.76 3	55.4	98.84	2 09
18.64 3	55.4	98.85	4 55
18.50 3	55.6	98.89	1 41
16.10 10	55.6	98.89	13 06
17.55 3	55.6	98.89	14 49
16.94 8	55.6	98.91	9 25
17.43 3	55.7	98.92	0 31
18.65 3	55.7	98.92	10 57
17.03 8	55.7	98.92	13 33
18.46 3	55.7	98.93	11 39
17.34 5	55.7	98.93	9 39
17.27 7	55.8	98.95	7 13
18.79 1	55.8	98.96	5 19
15.58 10	55.8	98.96	1 45
18.69 3	55.8	98.96	11 06
17.85 3	55.9	98.97	4 39
18.79 1	55.9	98.97	5 12
15.95 9	55.9	98.97	9 15
16.61 8	55.9	98.98	4 52
14.05 13	55.9	98.98	9 27
17.44 3	55.9	98.98	10 55
14.18 14	55.9	98.98	12 31
17.20 3	55.9	98.98	13 54
17.38 3	56.2	99.04	11 47
15.41 10	56.3	99.08	1 05
18.67 3	56.3	99.08	8 44
18.79 1	56.4	99.09	9 04
18.38 3	56.5	99.12	11 08
17.39 3	56.5	99.13	12 36
13.30w 12	56.5	99.14	12 58
18.25 3	56.6	99.15	9 03
17.83 3	56.6	99.16	12 30
17.12 3	56.7	99.17	12 21
17.51 3	56.7	99.18	9 02
18.33 3	56.7	99.18	9 07
18.80 3	56.8	99.19	9 33
18.04 3	56.8	99.19	5 27
16.44 8	56.8	99.21	7 57
14.92 12	56.8	99.21	0 33
17.89 3	56.9	99.22	8 29
17.90 3	56.9	99.23	1 37
15.48 10	56.9	99.23	10 06
16.07 10	57.0	99.24	3 38
18.31 3	57.0	99.25	7 16
16.93 8	57.0	99.26	9 47
18.79 1	57.1	99.28	4 52
17.11 3	57.2	99.29	0 43
16.99 8	57.2	99.29	2 17
17.57 4	57.2	99.29	9 45
17.03 8	57.2	99.31	7 18
16.55 8	57.3	99.32	0 58
17.36 5	57.4	99.36	4 52
18.04 3	57.5	99.37	5 09
18.72 3	57.6	99.41	11 19
18.58 3	57.7	99.42	9 49
15.32 11	57.7	99.43	4 22

271—330			
Mag.	α 32^{m}	x	$y+10'$
	s	′	′ ″
18.50 3	57.8	99.46	4 00
17.48 3	57.9	99.47	4 08
18.31 3	57.9	99.48	2 14
18.85 3	57.9	99.48	8 12
17.32 5	57.9	99.48	8 33
17.33 5	57.9	99.48	13 58
17.14 4	58.0	99.50	12 00
18.71 2	58.1	99.52	8 16
17.53 3	58.1	99.52	2 57
15.95 10	58.1	99.53	11 58
18.46 3	58.1	99.53	10 20
15.48 10	58.1	99.53	13 24
18.23 3	58.2	99.56	0 29
18.31 3	58.3	99.58	4 49
17.43 7	58.4	99.59	3 34
16.69 8	58.4	99.59	10 43
18.21 3	58.6	99.65	14 36
17.02 8	58.6	99.66	10 28
18.01 3	58.8	99.69	11 11
14.40 14	58.9	99.73	11 40
17.39 3	59.0	99.76	2 45
17.87 3	59.1	99.77	8 50
16.20 8	59.1	99.78	6 14
18.64 2	59.2	99.80	12 24
15.54 10	59.3	99.83	12 50
15.30 11	59.4	99.86	14 36
18.53 3	59.5	99.87	1 50
18.50 3	59.5	99.88	1 13
17.44 7	59.5	99.88	7 02
18.37 3	59.6	99.91	4 55
18.39 3	59.7	99.92	14 54
18.63 3	59.7	99.93	2 35
16.83 8	59.9	99.97	12 10
12.97 15	59.9	99.97	0 12
17.22 5	60.0	0.00	10 10
15.93 8	60.1	0.02	14 01
16.60 8	60.2	0.05	14 31
17.36 5	60.2	0.06	10 32
18.62 3	60.3	0.08	11 18
15.96 10	60.4	0.09	11 53
17.99 3	60.5	0.12	7 28
17.10 7	60.6	0.15	8 10
17.60 3	60.6	0.16	13 25
17.79 3	60.7	0.17	4 43
18.47 3	60.8	0.19	12 10
18.03 3	60.9	0.22	12 36
17.12 8	61.0	0.26	12 23
18.65 3	61.0	0.26	2 20
16.77 8	61.1	0.27	5 52
18.43 3	61.1	0.28	9 31
18.23 3	61.1	0.28	1 45
17.27 5	61.1	0.28	0 37
18.03 3	61.1	0.28	0 42
18.10 3	61.2	0.29	11 34
17.85 3	61.3	0.32	13 15
17.46 3	61.3	0.32	0 27
18.30 3	61.3	0.33	1 48
16.11 9	61.4	0.36	3 09
18.29 1	61.4	0.36	9 21
16.37 9	61.5	0.37	0 10

331—390			
Mag.	α 33^{m}	x	$y+10'$
	s	′	′ ″
17.45 5	1.5	0.38	3 15
17.60 3	1.5	0.38	2 00
18.67 1	1.5	0.38	12 16
18.16w 2	2	0.4	0 48
15.79 10	1.7	0.42	8 58
17.77 3	1.7	0.42	2 35
17.24 8	1.7	0.43	3 28
18.40 3	1.8	0.44	1 09
18.71 3	2.0	0.50	10 15
15.82 10	2.0	0.50	11 47
16.40 8	2.0	0.51	11 31
18.01 3	2.0	0.51	4 04
18.69 3	2.1	0.52	3 36
17.77 3	2.1	0.53	3 11
18.24 2	2.2	0.55	14 32
17.81 3	2.2	0.56	9 25
17.70 3	2.2	0.56	13 23
17.95 3	2.2	0.56	13 22
18.78 3	2.3	0.57	11 14
18.03 3	2.3	0.57	14 36
17.71 3	2.3	0.57	8 33
17.23 7	2.3	0.58	12 12
17.82 3	2.4	0.61	2 45
18.09 3	2.4	0.61	5 25
16.64 8	2.5	0.62	5 50
18.46 3	2.5	0.63	4 07
18.54 1	2.6	0.64	14 45
17.35 5	2.6	0.65	8 09
18.94 3	2.6	0.65	7 54
17.25 7	2.7	0.67	14 49
17.35 6	2.7	0.67	3 30
16.04 9	2.7	0.68	1 21
18.67 1	2.7	0.68	12 00
16.02 10	2.8	0.69	4 52
18.65 3	3.0	0.74	7 16
17.73 3	3.1	0.77	7 30
16.05 9	3.2	0.79	11 03
15.94 10	3.3	0.83	5 40
17.08 7	3.3	0.83	7 54
17.19 7	3.4	0.84	13 20
14.52 14	3.4	0.85	9 22
18.76 3	3.4	0.86	11 35
18.09 3	3.5	0.87	8 34
18.66 3	3.5	0.88	4 21
18.23 3	3.5	0.88	4 24
17.29 7	3.6	0.91	9 08
18.23 3	3.7	0.92	1 42
17.54 3	3.7	0.92	3 24
18.15 3	3.7	0.93	8 45
17.16 5	3.9	0.97	9 15
18.38 3	3.9	0.98	8 35
17.24 7	4.0	0.99	4 56
17.77 3	4.1	1.02	11 43
16.99 8	4.1	1.03	0 22
14.81 12	4.2	1.04	5 57
17.62 3	4.2	1.05	8 40
18.49 3	4.2	1.07	14 48
16.36 9	4.3	1.08	4 38
17.53 3	4.4	1.09	12 01
17.67 3	4.4	1.09	13 48

391—450			
Mag.	α 33^{m}	x	$y+10'$
	s	′	′ ″
18.01 3	4.4	1.09	5 49
17.46 3	4.4	1.10	4 10
17.03 7	4.4	1.10	7 00
18.57 3	4.4	1.11	7 10
18.66 3	4.4	1.11	11 10
13.90 13	4.5	1.12	6 57
16.09 9	4.6	1.16	9 48
16.64 8	4.8	1.19	9 15
18.79 1	4.8	1.20	8 46
17.61 3	4.8	1.20	4 06
18.54 1	4.9	1.23	14 45
17.97 3	4.9	1.23	12 02
18.62 3	5.0	1.24	4 31
17.78 3	5.0	1.26	10 35
17.64 3	5.1	1.28	13 22
18.80 2	5.1	1.28	5 59
17.51 4	5.1	1.28	8 25
16.50 8	5.2	1.30	8 16
18.68 3	5.2	1.31	10 01
18.79 1	5.2	1.31	10 33
17.42 2	5.3	1.33	10 59
18.36 3	5.4	1.34	11 14
15.31 10	5.4	1.34	12 03
18.11 3	5.4	1.36	9 23
17.46 3	5.5	1.37	1 50
17.52 3	5.5	1.38	1 32
17.31 5	5.5	1.38	1 24
17.53 4	5.7	1.42	5 35
18.15 3	5.7	1.43	12 09
17.24 8	5.8	1.46	2 24
17.37 3	5.9	1.47	11 06
14.31 14	6.0	1.49	11 17
18.23 2	6.0	1.49	10 58
17.04 8	6.0	1.50	2 08
18.10 3	6.1	1.52	12 30
17.53 3	6.1	1.53	12 16
17.89 3	6.1	1.53	3 57
17.20 8	6.1	1.53	2 26
18.49 3	6.2	1.56	13 57
17.98 3	6.3	1.57	12 49
18.12 3	6.3	1.57	0 05
18.86 3	6.3	1.58	4 20
18.85 3	6.4	1.60	10 34
18.81 3	6.5	1.63	7 33
17.93 3	6.6	1.66	8 47
17.17 7	6.7	1.68	4 50
18.70 3	6.8	1.70	10 43
17.37 7	7.0	1.75	2 46
18.46 3	7.0	1.76	4 41
16.98 8	7.1	1.77	14 11
18.68 3	7.1	1.77	6 47
18.61 3	7.1	1.77	6 40
18.25 3	7.1	1.78	11 54
18.42 1	7.1	1.78	8 19
18.80 3	7.1	1.78	6 26
18.58 3	7.3	1.82	3 02
18.74 3	7.4	1.85	8 02
18.12 3	7.4	1.86	7 14
13.72 14	7.5	1.87	4 37
17.88 3	7.6	1.89	13 10

25 prec. + $76^{\mathrm{s}}.8$, + 3′ 18″

451—510					511—570					571—630					631—690					691—750				
Mag.		α 33^{m}	x	$y+10'$	Mag.		α 33^{m}	x	$y+10'$	Mag.		α 33^{m}	x	$y+10'$	Mag.		α 33^{m}	x	$y+10'$	Mag.		α 33^{m}	x	$y+10'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
17.58	3	7.7	1.92	1 07	18.92	3	11.5	2.88	9 26	17.65	3	14.8	3.70	12 56	18.30	3	18.3	4.57	1 17	18.57	3	21.3	5.32	7 42
18.88	3	7.7	1.93	8 53	18.07	3	11.6	2.89	8 41	17.19	7	15.0	3.75	10 30	18.66	3	18.4	4.62	1 46	17.79	3	21.3	5.32	9 59
18.26	3	7.7	1.93	12 27	17.62	3	11.6	2.89	2 43	18.94	2	15.0	3.76	3 49	18.41	3	18.6	4.65	10 51	15.46	10	21.3	5.33	11 07
17.54	5	7.9	1.97	11 05	18.10	3	11.6	2.90	10 06	18.90	3	15.2	3.80	5 16	18.77	3	18.6	4.66	14 13	18.60	3	21.3	5.33	4 24
17.91	3	7.9	1.98	8 21	18.15	3	11.7	2.92	14 53	17.21	5	15.3	3.83	10 33	16.67	9	18.6	4.66	3 37	17.91	3	21.3	5.33	3 28
17.92	3	7.9	1.98	1 55	17.48	6	11.8	2.95	6 19	16.76	8	15.3	3.83	11 50	17.85	3	18.7	4.68	4 58	15.14	12	21.3	5.33	3 33
17.28	7	8.2	2.06	0 38	17.43	3	11.8	2.96	12 48	18.70	3	15.4	3.85	11 05	17.44	5	18.7	4.68	10 12	17.81	3	21.4	5.36	12 40
18.49	3	8.2	2.06	3 00	17.49	3	11.9	2.98	2 01	18.97	3	15.4	3.85	3 03	18.93	2	18.7	4.68	6 48	15.93	10	21.5	5.37	0 57
18.92	3	8.2	2.06	10 13	17.22	8	11.9	2.98	3 16	18.10	3	15.6	3.89	10 42	17.66	3	18.9	4.72	1 55	18.98	2	21.5	5.38	10 47
17.11	6	8.3	2.08	13 52	17.91	3	12.0	3.01	5 04	18.67	1	15.6	3.91	12 47	18.59	3	18.9	4.72	9 00	17.65	3	21.6	5.41	9 27
18.62	3	8.5	2.12	4 10	17.48	3	12.0	3.01	7 21	14.70	11	15.8	3.95	7 02	17.85	3	18.9	4.73	8 45	17.14	8	21.6	5.41	3 08
16.96	8	8.7	2.17	0 11	18.74	3	12.1	3.03	12 07	18.84	2	15.9	3.97	11 59	18.54	3	18.9	4.73	13 19	18.40	3	21.8	5.46	4 26
17.51	3	8.9	2.22	0 21	17.61	3	12.2	3.05	1 19	17.75	3	15.9	3.98	11 24	17.64	4	19.0	4.75	8 31	18.60	3	21.8	5.46	12 58
18.94	3	8.9	2.23	9 43	17.87	3	12.3	3.08	8 43	16.52	8	16.0	3.99	12 52	18.98	3	19.0	4.76	11 01	18.56	3	21.9	5.48	3 05
14.83	11	9.0	2.24	5 22	17.45	3	12.3	3.08	13 00	17.82	3	16.2	4.04	11 14	18.61	3	19.0	4.76	13 00	18.76	3	22.0	5.49	12 44
16.69	8	9.0	2.24	0 59	17.55	4	12.4	3.09	10 18	18.18	1	16.3	4.08	7 12	17.38	6	19.1	4.77	3 24	18.79	1	22.1	5.52	11 16
18.26	3	9.0	2.26	13 21	16.25	9	12.4	3.09	6 49	17.07	8	16.3	4.08	8 04	18.11	3	19.1	4.78	6 24	17.50	4	22.1	5.52	7 55
16.48	8	9.0	2.26	14 34	18.70	3	12.4	3.11	14 10	18.50	3	16.3	4.08	9 48	18.40	3	19.2	4.79	0 52	18.79	1	22.1	5.52	1 27
18.67	1	9.2	2.29	0 48	19.02	3	12.5	3.13	9 12	17.64	3	16.3	4.08	0 03	17.62	3	19.3	4.83	14 18	18.50	3	22.2	5.54	0 51
16.04	9	9.2	2.30	5 46	18.70	3	12.6	3.15	13 40	16.49	8	16.3	4.08	1 25	18.64	3	19.4	4.85	2 05	18.15	3	22.2	5.56	9 27
17.66	3	9.3	2.32	1 43	17.62	3	12.7	3.18	5 11	17.95	3	16.4	4.09	10 54	17.31	3	19.4	4.86	2 32	17.12	6	22.2	5.56	7 05
17.42	3	9.3	2.33	0 34	18.67	1	12.8	3.19	13 38	14.87	12	16.4	4.10	12 37	18.49	3	19.4	4.86	10 44	18.00	2	22.2	5.56	11 02
14.80	12	9.6	2.39	10 57	17.06	8	12.8	3.20	8 14	17.80	3	16.4	4.10	13 45	18.91	1	19.4	4.86	10 10	18.32	3	22.2	5.56	14 15
15.31	11	9.6	2.39	11 41	18.34	3	12.8	3.21	0 06	17.89	3	16.6	4.15	6 55	18.57	3	19.5	4.87	2 52	15.08	11	22.3	5.57	1 36
18.44	3	9.8	2.45	14 24	17.08	4	12.9	3.22	1 06	19.05	1	16.6	4.16	9 14	18.80	3	19.5	4.87	2 11	17.93	3	22.3	5.57	8 48
17.77	3	9.9	2.47	4 39	17.94	3	12.9	3.22	1 17	18.97	3	16.7	4.17	10 12	19.18	1	19.5	4.88	7 22	17.53	3	22.3	5.57	8 32
18.09	3	9.9	2.48	6 09	14.75	10	12.9	3.22	6 58	17.43	3	16.7	4.18	1 02	18.16	3	19.6	4.90	6 43	18.57	3	22.3	5.58	14 55
17.89	3	9.9	2.48	8 01	19.18	1	12.9	3.22	8 19	18.69	3	16.8	4.19	1 40	18.15	3	19.6	4.91	10 03	18.67	3	22.4	5.61	6 50
19.05	1	10.0	2.49	6 39	17.37	6	12.9	3.23	9 00	13.85	14	16.8	4.19	7 33	18.17	3	19.7	4.93	12 40	18.66	3	22.6	5.66	0 47
15.89	9	10.0	2.50	10 26	18.18	1	13.0	3.24	7 06	18.42	3	16.9	4.22	8 55	17.23	7	20.0	4.99	14 24	18.86	2	22.6	5.66	7 04
17.39	5	10.1	2.53	12 38	18.31	3	13.0	3.26	8 19	18.55	3	16.9	4.23	0 59	18.25	3	20.0	4.99	7 10	18.24	3	22.7	5.68	0 16
18.79	1	10.2	2.54	3 08	15.52	5	13.1	3.27	7 03	18.50	3	17.0	4.24	11 39	17.64	3	20.0	4.99	7 18	16.35	9	22.7	5.68	4 31
17.63	3	10.2	2.56	4 18	18.91	1	13.1	3.27	10 57	18.62	2	17.0	4.25	9 15	17.00	8	20.0	4.99	1 49	18.67	1	22.7	5.68	14 37
17.97	3	10.2	2.56	10 57	16.89	8	13.2	3.29	10 06	18.35	3	17.0	4.26	13 01	17.70	3	20.0	5.01	13 51	18.83	3	22.8	5.71	5 02
17.45	4	10.3	2.57	7 37	17.76	3	13.2	3.29	0 25	18.86	2	17.1	4.28	5 48	18.21	3	20.1	5.02	9 24	15.35	11	23.0	5.74	9 16
17.95	3	10.3	2.57	0 56	17.68	3	13.2	3.31	4 52	18.42	3	17.2	4.31	2 13	17.69	3	20.2	5.06	7 57	18.12	3	23.1	5.78	1 13
17.42	3	10.3	2.58	1 15	15.83	10	13.4	3.34	6 53	17.93	3	17.3	4.32	8 03	17.83	3	20.2	5.06	3 03	14.79	12	23.2	5.79	13 21
17.60	3	10.3	2.58	3 02	17.66	3	13.4	3.36	5 03	18.75	3	17.3	4.33	3 05	17.97	3	20.2	5.06	4 57	18.91	1	23.2	5.81	8 02
19.04	3	10.4	2.59	8 45	18.55	3	13.5	3.38	14 55	18.46	3	17.3	4.33	0 16	18.58	3	20.3	5.07	4 29	19.05	1	23.3	5.83	7 41
17.49	3	10.4	2.60	0 13	16.93	8	13.5	3.38	1 38	17.65	3	17.4	4.36	0 22	15.88	10	20.3	5.07	0 01	18.93	3	23.3	5.83	0 33
18.66	3	10.5	2.62	14 33	14.62	14	13.6	3.39	6 39	16.90	8	17.5	4.38	0 33	19.18	1	20.3	5.08	7 51	16.16	10	23.4	5.84	14 26
18.94	2	10.5	2.63	8 35	16.96	8	13.6	3.40	14 44	18.54	3	17.5	4.38	2 28	17.21	6	20.4	5.09	6 18	17.06	8	23.5	5.87	10 14
18.46	3	10.5	2.63	10 45	18.29	3	13.6	3.41	13 16	18.31	3	17.6	4.39	13 03	17.82	3	20.4	5.10	9 08	18.47	3	23.5	5.87	7 10
18.91	1	10.6	2.65	4 40	18.48	3	13.7	3.42	4 01	17.67	3	17.6	4.39	14 12	17.97	3	20.4	5.10	12 49	19.05	1	23.5	5.88	6 36
18.05	3	10.6	2.65	8 18	18.42	1	13.8	3.46	7 00	16.46	8	17.6	4.41	8 45	16.46	9	20.5	5.12	1 19	17.00	8	23.6	5.89	0 55
17.51	3	10.7	2.68	5 48	18.32	3	14.0	3.49	10 55	17.79	3	17.6	4.41	7 12	18.79	1	20.5	5.12	1 37	17.93	3	23.6	5.89	6 09
17.80	3	10.8	2.69	11 35	19.18	1	14.0	3.51	8 47	19.18	1	17.6	4.41	6 47	18.09	3	20.5	5.13	8 29	17.15	5	23.6	5.90	0 19
19.05	1	10.8	2.71	5 34	17.68	4	14.1	3.52	6 05	17.92	3	17.7	4.42	13 47	17.93	3	20.6	5.16	4 51	16.73	8	23.7	5.92	4 29
18.82	3	11.0	2.75	10 46	17.72	3	14.4	3.60	9 16	17.90	3	17.7	4.43	10 29	18.46	3	20.7	5.17	6 37	16.98	8	23.7	5.92	4 39
18.79	1	11.0	2.75	3 08	18.61	3	14.5	3.63	12 58	17.25	3	17.8	4.44	13 55	18.36	3	20.7	5.18	6 00	18.03	3	23.8	5.96	3 45
18.82	3	11.0	2.75	8 27	18.91	1	14.5	3.63	4 30	17.29	5	17.8	4.46	9 50	17.95	3	20.9	5.22	2 53	18.91	1	23.8	5.96	4 06
19.18	1	11.1	2.77	6 58	17.17	8	14.6	3.64	6 07	18.79	2	17.9	4.48	12 07	18.19	3	21.0	5.24	14 02	16.60	8	23.9	5.98	6 27
18.05	3	11.1	2.77	8 04	17.35	3	14.6	3.66	13 11	17.85	3	17.9	4.48	3 49	18.29	3	21.0	5.24	10 22	17.31	5	23.9	5.98	0 09
17.71	3	11.1	2.77	6 05	17.05	8	14.6	3.66	10 03	19.18	1	18.0	4.51	7 33	17.17	8	21.0	5.24	5 24	18.52	2	23.9	5.98	1 12
18.21	3	11.1	2.77	1 26	18.79	1	14.6	3.66	11 40	18.33	3	18.1	4.52	0 52	17.01	8	21.0	5.25	14 32	15.56	11	24.0	5.99	1 28
14.57	5	11.1	2.78	7 06	18.50	3	14.6	3.66	0 51	17.49	3	18.1	4.53	6 34	18.88	2	21.1	5.28	8 11	17.61	3	24.0	6.01	12 18
15.04	12	11.2	2.79	10 27	7.03h	1	14.7	3.67	7 09	18.94	2	18.2	4.56	9 25	17.63	3	21.1	5.28	6 38	18.23	3	24.0	6.01	7 43
15.38	11	11.5	2.88	0 04	17.40	6	14.7	3.67	8 19	16.56	7	18.3	4.57	7 24	17.93	3	21.2	5.31	13 26	17.47	3	24.0	6.01	9 44
18.01	3	11.5	2.88	2 12	18.51	3	14.7	3.68	14 18	17.26	6	18.3	4.57	4 52	16.55	8	21.2	5.31	0 26	18.76	3	24.1	6.02	6 05
17.26	7	11.5	2.88	3 50	18.30	3	14.8	3.69	12 10	17.93	3	18.3	4.57	2 43	19.06	3	21.3	5.32	7 25	17.18	5	24.4	6.09	11 00

25 prec. + $76^{s}.8$, + 3′ 18″

751—810					811—870					871—930					931—990					991—1050				
Mag.		α 33^{m}	x	$y+10'$	Mag.		α 33^{m}	x	$y+10'$	Mag.		α 33^{m}	x	$y+10'$	Mag.		α 33^{m}	x	$y+10'$	Mag.		α 33^{m}	x	$y+10'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
18.58	3	24.4	6.09	2 38	18.46	3	27.4	6.85	3 50	18.41	3	30.0	7.50	10 58	17.58	3	34.2	8.56	14 27	18.64	2	37.7	9.43	3 34
17.26	7	24.4	6.10	2 16	17.82	3	27.4	6.86	0 36	18.29	3	30.2	7.56	12 57	17.26	5	34.3	8.58	3 00	16.09	8	37.7	9.43	7 11
17.42	5	24.4	6.10	5 44	18.42	3	27.5	6.87	4 00	17.49	3	30.3	7.57	5 15	18.62	3	34.5	8.62	1 40	17.36	3	37.8	9.44	13 06
18.74	3	24.6	6.15	1 59	18.79	1	27.5	6.87	10 48	17.94	3	30.3	7.58	6 52	18.11	3	34.5	8.62	6 59	18.31	3	37.8	9.45	0 15
17.08	8	24.6	6.16	0 41	18.74	3	27.6	6.89	12 42	18.54	3	30.3	7.58	0 07	17.86	3	34.5	8.62	7 55	17.51	3	37.8	9.46	13 10
17.55	3	24.7	6.17	3 22	17.45	3	27.6	6.91	7 52	13.98	15	30.5	7.62	10 05	17.73	3	34.5	8.63	13 57	18.58	3	37.8	9.46	7 51
15.50	11	24.8	6.19	11 38	18.87	3	27.7	6.93	6 43	17.29	3	30.5	7.62	12 59	18.79	1	34.6	8.66	7 21	17.69	3	37.9	9.47	4 23
18.23	3	24.9	6.23	11 06	18.48	3	27.7	6.93	11 51	16.87	8	30.5	7.62	2 56	16.32	8	34.7	8.68	14 17	18.54	1	37.9	9.48	14 41
17.74	3	24.9	6.23	3 01	16.40	9	27.8	6.95	10 20	17.53	3	30.6	7.66	4 10	17.55	3	34.8	8.70	6 39	17.56	3	38.0	9.51	13 29
17.95	3	25.0	6.24	5 19	15.45	12	27.9	6.97	6 50	15.50	10	30.7	7.67	3 12	17.38	3	34.9	8.73	13 10	16.17	9	38.0	9.51	6 09
18.51	3	25.0	6.25	5 46	17.51	3	27.9	6.97	5 37	17.54	3	30.7	7.67	4 42	18.10	3	34.9	8.73	3 45	18.44	3	38.0	9.51	8 41
18.54	3	25.0	6.25	3 40	17.48	2	27.9	6.98	14 11	17.66	3	30.7	7.67	5 37	17.71	3	35.0	8.75	7 51	16.78	8	38.1	9.52	12 30
17.95	3	25.0	6.26	7 48	17.65	3	28.0	6.99	7 46	18.41	3	30.8	7.71	4 06	18.79	1	35.0	8.76	5 36	17.26	3	38.1	9.52	3 31
18.02	3	25.0	6.26	10 22	18.09	3	28.0	7.01	8 43	16.34	8	30.9	7.72	5 23	17.43	3	35.0	8.76	0 31	16.57	8	38.1	9.53	2 56
17.58	3	25.0	6.26	14 53	17.63	3	28.1	7.02	3 21	18.52	3	31.0	7.75	1 40	18.62	3	35.1	8.77	3 56	18.67	1	38.2	9.54	9 30
18.67	1	25.1	6.28	1 31	17.69	2	28.1	7.03	14 17	16.67	8	31.1	7.78	9 24	16.99	8	35.1	8.77	4 49	17.23	5	38.2	9.56	1 04
17.99	3	25.2	6.29	10 28	18.76	3	28.2	7.05	6 56	17.31	7	31.1	7.78	9 17	17.66	3	35.1	8.77	9 59	18.66	3	38.2	9.56	4 31
18.78	3	25.2	6.30	4 55	17.93	3	28.2	7.06	10 33	16.65	8	31.2	7.79	10 25	18.66	3	35.1	8.78	11 53	16.72	8	38.2	9.56	14 16
18.79	1	25.3	6.32	11 20	15.79	8	28.2	7.06	14 04	16.88:	8	31.2	7.80	12 08	17.82	3	35.1	8.78	14 08	18.35	3	38.5	9.62	13 55
18.13	3	25.4	6.34	0 43	14.85	12	28.3	7.07	1 28	17.78	3	31.2	7.81	6 10	18.55	3	35.1	8.78	14 28	16.63	8	38.5	9.63	10 54
19.05	1	25.5	6.38	7 03	17.61	3	28.3	7.08	0 48	17.53	3	31.3	7.83	6 44	18.48	2	35.1	8.78	14 42	18.44	3	38.6	9.65	8 35
18.54	3	25.6	6.39	5 26	16.55	9	28.4	7.09	2 10	14.83	12	31.5	7.87	5 58	18.46	3	35.1	8.78	13 20	18.60	3	38.6	9.65	7 04
17.79	3	25.8	6.44	8 39	15.50	11	28.4	7.11	11 38	17.90	3	31.6	7.89	11 23	17.13	8	35.2	8.79	6 25	17.89	3	38.6	9.66	4 25
15.44	11	25.8	6.45	2 06	17.78	3	28.5	7.12	13 27	16.34	9	31.6	7.89	10 42	17.77	3	35.3	8.83	12 48	18.58	3	38.7	9.67	12 17
15.56	8	25.8	6.45	1 36	15.92	9	28.5	7.13	11 55	17.40	3	31.6	7.89	10 13	17.54	3	35.6	8.91	9 35	15.47	12	38.7	9.68	7 50
17.08	8	25.8	6.46	2 29	16.34	8	28.5	7.13	8 30	17.47	3	31.6	7.90	5 31	18.52	3	35.6	8.91	7 06	18.50	3	38.7	9.68	1 08
17.93	3	25.9	6.47	10 42	18.52	3	28.5	7.13	6 30	16.96	8	31.6	7.90	7 07	17.26	3	35.7	8.93	14 11	17.40	3	38.7	9.68	0 47
17.12	8	25.9	6.47	12 58	17.35	3	28.6	7.15	3 29	18.62	3	31.8	7.94	10 19	17.89	3	35.8	8.94	3 52	18.43	3	38.8	9.70	14 12
17.30	3	25.9	6.47	14 21	17.14	6	28.6	7.15	4 09	17.67	3	31.8	7.95	1 08	17.27	5	35.8	8.94	5 26	16.68	8	38.9	9.72	3 02
17.04	8	26.0	6.49	11 06	18.53	3	28.6	7.16	8 34	16.33	8	31.8	7.96	6 04	16.95	8	35.9	8.97	5 27	17.49	3	38.9	9.73	7 40
18.23	3	26.0	6.49	14 57	17.43	3	28.7	7.17	9 54	18.79	3	32.0	7.99	6 42	18.03	3	35.9	8.98	1 37	17.44	3	39.1	9.77	6 50
17.97	3	26.0	6.49	2 03	17.81	3	28.7	7.18	8 48	16.07	9	32.0	8.00	11 11	17.90	3	35.9	8.98	3 30	16.88	8	39.1	9.77	4 20
17.93	3	26.0	6.49	6 31	17.00	8	28.7	7.18	0 58	16.36	9	32.1	8.02	3 26	17.40	3	35.9	8.98	9 45	17.90	3	39.1	9.78	1 33
18.48	2	26.0	6.50	14 28	18.20	3	28.7	7.18	12 28	17.43	3	32.2	8.04	4 35	17.08	8	36.0	9.00	12 02	17.60	3	39.1	9.78	9 12
18.53	3	26.0	6.51	14 09	17.75	3	28.8	7.20	4 53	15.65	9	32.4	8.09	7 47	17.21	7	36.0	9.00	4 52	18.36	3	39.1	9.78	12 20
18.89	3	26.1	6.52	4 38	16.99	8	28.9	7.23	14 24	17.57	3	32.4	8.09	10 02	18.08	2	36.0	9.01	4 31	18.04	3	39.3	9.82	2 02
17.75	3	26.1	6.52	1 42	17.72	3	29.0	7.26	10 38	17.13	3	32.4	8.09	12 47	17.25	3	36.3	9.07	0 59	17.59	3	39.3	9.82	14 58
18.18	3	26.1	6.53	1 48	17.74	3	29.1	7.27	1 21	17.79	3	32.4	8.11	14 57	17.63	3	36.3	9.08	2 29	18.48	2	39.3	9.83	12 15
17.94	3	26.2	6.55	9 54	16.99	8	29.1	7.27	2 50	18.67	3	32.6	8.15	4 56	17.78	3	36.3	9.08	5 19	18.60	2	39.4	9.86	9 17
19.05	1	26.3	6.57	6 11	15.78	9	29.1	7.28	7 16	17.55	3	32.6	8.16	4 24	17.38	5	36.4	9.09	3 17	16.94	4	39.5	9.87	2 26
16.48	8	26.3	6.58	0 43	18.59	3	29.3	7.32	0 04	18.79	1	32.7	8.17	4 34	18.43	3	36.6	9.14	14 31	18.58	2	39.5	9.87	4 22
18.47	3	26.3	6.58	0 56	17.38	3	29.3	7.33	1 36	17.92	3	32.7	8.17	11 52	13.91	13	36.6	9.15	11 17	17.65	3	39.5	9.88	14 44
17.93	3	26.6	6.64	12 58	17.68	3	29.3	7.33	5 18	18.79	1	32.7	8.17	6 05	17.27	5	36.6	9.16	3 03	17.34	3	39.6	9.89	14 06
18.54	3	26.6	6.66	12 35	18.40	3	29.4	7.34	13 32	17.46	3	32.9	8.22	5 46	17.37	3	36.7	9.17	4 16	18.40	2	39.6	9.89	12 48
18.34	2	26.6	6.66	10 26	18.53	3	29.4	7.35	4 34	17.96	2	33.0	8.25	10 25	17.18	3	36.7	9.17	8 25	18.42	3	39.7	9.93	1 06
17.77	3	26.6	6.66	12 13	18.68	3	29.4	7.36	2 25	18.09	3	33.0	8.25	12 36	15.75	10	36.7	9.18	12 44	18.54	3	39.8	9.94	10 27
18.14	2	26.7	6.68	13 30	18.68	3	29.5	7.38	1 30	17.49	3	33.1	8.28	5 03	17.86	1	36.9	9.23	9 29	18.42	2	39.8	9.95	6 20
18.91	1	26.8	6.69	4 50	17.77	3	29.5	7.38	2 18	17.66	3	33.3	8.33	5 11	16.12	9	37.0	9.24	14 44	18.60	2	39.9	9.97	9 21
17.72	3	26.9	6.72	2 19	13.80	14	29.6	7.39	2 36	17.24	3	33.4	8.34	4 27	17.53	3	37.0	9.25	7 44	17.61	3	39.9	9.98	0 41
17.74	3	26.9	6.73	6 59	18.33	3	29.6	7.40	2 00	17.18	8	33.5	8.37	6 21	17.63	3	37.0	9.26	4 36	18.42	3	40.0	10.01	7 43
18.65	3	27.0	6.74	1 23	18.72	3	29.6	7.40	5 30	17.50	3	33.5	8.38	1 28	18.61	3	37.1	9.27	7 16	18.45	3	40.1	10.03	6 28
18.91	1	27.0	6.75	8 55	17.89	3	29.6	7.41	11 24	17.87	3	33.6	8.39	11 58	18.33	3	37.1	9.27	7 38	18.54	2	40.3	10.07	10 27
17.63	3	27.1	6.77	10 59	18.19	3	29.7	7.42	9 22	18.15	3	33.6	8.40	2 34	17.22	3	37.1	9.28	3 36	17.70	3	40.5	10.12	6 01
16.98	7	27.2	6.80	13 34	18.10	3	29.7	7.43	10 00	18.57	2	33.6	8.41	7 16	16.43	7	37.2	9.30	10 22	18.60	2	40.5	10.13	9 09
18.74	3	27.3	6.82	6 38	16.26	9	29.7	7.43	14 24	18.57	3	33.7	8.42	7 11	16.68	8	37.3	9.32	5 51	18.62	3	40.7	10.18	6 29
17.32	3	27.3	6.82	1 25	17.72	3	29.8	7.46	14 12	17.65	3	33.7	8.43	9 56	17.27	3	37.4	9.35	7 11	18.52	3	40.7	10.18	8 33
17.87	3	27.3	6.83	3 13	17.25	3	29.8	7.46	7 53	17.55	3	33.8	8.44	7 36	18.43	3	37.4	9.35	14 18	17.08	7	40.8	10.20	13 58
18.83	3	27.3	6.83	7 36	18.22	3	29.9	7.48	0 02	17.89	3	33.8	8.44	4 42	17.64	2	37.6	9.41	11 18	17.62	3	40.8	10.21	7 19
18.76	3	27.3	6.83	9 56	17.85	3	29.9	7.48	7 36	17.81	3	33.8	8.46	10 10	16.46	8	37.6	9.41	11 09	18.32	2	40.9	10.23	11 59
15.88	10	27.4	6.84	9 51	17.27	7	29.9	7.48	11 48	18.49	3	34.0	8.49	13 00	18.06	3	37.6	9.41	0 51	18.54	1	41.0	10.26	12 20

25 prec. + $76^{\mathrm{s}}.8$, + 3′ 19″

1051—1060					1061—1070					1071—1080					1081—1090					1091—1095				
Mag.		α 33^{m}	x	y+10′	Mag.		α 33^{m}	x	y+10′	Mag.		α 33^{m}	x	y+10′	Mag.		α 33^{m}	x	y+10′	Mag.		α 33^{m}	x	y+10′
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
17.40	3	41.1	10.28	0 34	16.24	8	41.5	10.37	1 35	15.70	10	42.0	10.49	13 36	16.92	8	43.0	10.76	4 28	15.63	9	43.6	10.90	13 57
17.85	3	41.1	10.28	8 05	17.78	3	41.5	10.38	3 41	17.43	3	42.1	10.52	7 37	14.79	12	43.1	10.77	3 46	18.10	3	43.7	10.93	0 04
17.13	8	41.2	10.29	6 17	16.43	9	41.6	10.39	5 06	17.71	3	42.2	10.54	8 10	17.98	2	43.1	10.78	10 38	18.39	3	43.7	10.93	8 01
18.56	3	41.3	10.32	8 32	17.24	5	41.6	10.40	1 47	18.43	3	42.3	10.57	2 25	16.75	8	43.2	10.79	10 36	17.35	3	43.9	10.98	9 48
17.08	7	41.3	10.32	13 57	17.68	2	41.6	10.41	12 01	16.00	10	42.3	10.58	10 54	18.55	3	43.3	10.82	8 53	18.43	2	44.0	10.99	13 26
15.48	9	41.3	10.33	2 25	18.54	2	41.7	10.42	9 20	17.70	2	42.6	10.66	12 12	17.82	3	43.3	10.83	9 11					
16.09	9	41.4	10.35	0 05	17.43	3	41.7	10.42	3 20	16.44	8	42.7	10.67	10 27	17.65	3	43.4	10.84	3 47					
16.66	8	41.4	10.35	3 11	17.66	3	41.7	10.42	2 39	17.45	3	42.7	10.67	9 06	18.34	3	43.4	10.86	5 37					
13.71	15	41.5	10.37	1 58	16.91	6	41.7	10.43	13 59	18.46	3	42.8	10.71	3 24	17.87	3	43.4	10.86	5 00					
17.83	3	41.5	10.37	3 13	16.81	8	41.9	10.47	6 35	17.94	3	43.0	10.75	9 11	16.77	8	43.5	10.87	9 17					

25 prec. + 76^{s}.8, + 3′ 19″

19^{h} Area 111. Supplementary Stars + 0°, − 0°

1s—40s					41s—80s					81s—120s					121s—160s					161s—200s				
Mag.		α 32^{m}	x	y+10′	Mag.		α 32^{m}	x	y+10′	Mag.		α 32^{m}	x	y+10′	Mag.		α 32^{m}	x	y+10′	Mag.		α 32^{m}	x	y+10′
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
17.34	2	30	92.4	+ 7.6	18.40	2	36	94.0	+ 1.8	17.02	7	39	94.7	+10.8	18.48	2	42	95.4	+11.8	17.20	2	44	96.1	− 1.0
16.88	6	30	92.6	+ 6.4	18.61	2	36	94.0	+ 5.6	16.80	7	39	94.7	+12.0	16.99	7	42	95.4	+12.4	16.03	7	44	96.1	− 0.8
17.84	2	30	92.6	+ 8.6	17.93	2	36	94.0	+ 7.4	18.36	2	39	94.7	+12.2	17.86	2	42	95.4	+13.2	17.89	2	45	96.2	− 1.2
15.54	8	31	92.8	+ 6.4	17.82	2	36	94.0	+ 8.5	16.64	7	39	94.7	+12.4	18.08	2	42	95.4	+13.6	17.62	2	46	96.5	− 1.6
17.12	4	31	92.8	+ 9.6	16.11	8	36	94.0	+10.2	16.19	8	39	94.7	+13.5	17.57	2	42	95.4	+14.3	17.09	4	46	96.6	+15.6
17.92	2	32	92.9	+ 3.8	18.43	2	36	94.0	+10.8	13.94	12	39	94.7	+14.0	18.32	2	42	95.4	+14.4	16.73	7	47	96.7	+15.2
15.26	10	32	92.9	+ 5.2	12.39	12	36	94.0	+12.3	17.66	2	39	94.8	+ 5.8	15.20	10	42	95.4	+14.9	17.89	2	47	96.7	+15.8
18.40	2	32	92.9	+ 6.6	17.36	2	36	94.1	+ 8.1	18.56	2	39	94.8	+ 6.7	18.38	2	42	95.5	+ 9.1	18.45	2	48	96.9	− 2.0
17.63	2	32	92.9	+ 8.0	17.08	6	37	94.2	+ 1.7	16.91	7	39	94.8	+ 7.2	15.79	8	42	95.6	0.0	18.26	2	48	96.9	− 1.5
18.24	2	32	93.0	+ 8.8	16.96	2	37	94.2	+ 2.4	15.80	8	39	94.8	+ 9.0	18.14	2	42	95.6	+ 1.6	18.01	2	48	96.9	− 0.9
18.32	2	32	93.0	+10.0	18.21	2	37	94.2	+ 6.4	17.62	2	39	94.8	+ 9.8	17.09	2	42	95.6	+ 2.4	17.04	4	48	96.9	− 0.6
18.43	2	32	93.0	+10.1	17.68	2	37	94.2	+ 8.2	18.33	2	39	94.8	+11.2	18.28	2	42	95.6	+ 2.6	18.84	2	48	97.0	+16.0
18.43	2	33	93.2	+ 3.4	18.72	2	37	94.2	+ 9.6	18.20	2	39	94.8	+12.6	16.92	7	42	95.6	+10.4	15.42	9	49	97.2	+15.2
16.65	7	33	93.2	+ 4.7	18.53	2	37	94.2	+ 9.8	17.27	2	40	94.9	+ 0.8	16.62	7	42	95.6	+11.6	17.27	4	49	97.2	+16.2
16.92	7	33	93.2	+ 5.6	17.34	2	37	94.2	+12.8	17.96	2	40	94.9	+ 2.9	17.24	2	42	95.6	+12.4	18.69	2	50	97.4	− 1.5
17.28	2	33	93.2	+ 7.4	18.58	2	37	94.3	+ 3.4	15.98	8	40	94.9	+ 5.9	17.73	2	42	95.6	+13.8	18.40	2	50	97.4	− 1.4
17.40	2	33	93.2	+10.4	17.50	2	37	94.3	+10.2	16.90	7	40	94.9	+10.6	17.82	2	43	95.7	+ 1.4	15.61	8	50	97.4	+16.4
17.56	2	33	93.2	+11.2	15.62	8	37	94.3	+10.4	17.31	2	40	94.9	+13.6	18.66	2	43	95.7	+ 5.6	17.68	2	50	97.5	+15.4
18.46	2	34	93.4	+ 6.0	17.27	2	38	94.4	+ 1.8	18.42	2	40	95.0	+ 4.6	18.52	2	43	95.7	+11.0	17.18	4	50	97.6	− 1.0
17.05	6	34	93.4	+ 6.3	16.93	5	38	94.4	+ 2.8	18.17	2	40	95.0	+ 5.4	17.54	2	43	95.7	+12.1	15.94	8	51	97.7	− 2.2
17.80	2	34	93.4	+ 6.6	17.44	2	38	94.4	+ 3.2	18.46	2	40	95.0	+13.0	18.44	2	43	95.7	+12.4	17.94	2	51	97.7	+15.4
16.82	7	34	93.4	+ 8.2	15.36	9	37	94.4	+13.6	18.20	2	40	95.0	+13.6	17.93	2	43	95.7	+13.2	16.97	7	51	97.8	− 1.5
15.31	9	34	93.4	+ 9.4	16.63	7	38	94.5	+ 7.8	17.95	2	40	95.1	+ 0.1	17.34	2	43	95.8	+ 2.4	17.68	2	51	97.8	− 0.6
17.18	2	34	93.4	+10.4	18.19	2	38	94.5	+13.0	18.49	2	40	95.1	+ 1.9	17.29	2	43	95.8	+ 3.9	17.29	2	51	97.8	+15.8
17.30	2	34	93.4	+11.8	17.69	2	38	94.6	+ 1.4	17.09	4	40	95.1	+ 2.5	17.80	2	43	95.8	+ 8.2	18.54	2	51	97.8	+15.9
16.07	8	34	93.5	+ 2.5	18.20	2	38	94.6	+ 3.8	17.41	2	40	95.1	+ 4.9	17.29	6	43	95.8	+ 8.4	18.17	2	53	98.3	+15.0
17.12	4	34	93.5	+ 4.2	17.08	4	38	94.6	+ 6.2	16.63	7	41	95.2	+ 1.4	18.40	2	43	95.8	+ 8.6	15.48	7	53	98.3	+15.2
17.34	2	34	93.6	+ 2.6	18.10	2	38	94.6	+ 6.7	17.80	2	41	95.2	+ 5.4	17.32	2	43	95.8	+14.6	18.27	2	54	98.4	− 1.4
17.63	2	34	93.6	+ 8.4	17.56	2	38	94.6	+ 8.3	16.99	4	41	95.3	− 0.2	18.50	2	44	95.9	+ 0.8	18.48	2	54	98.6	− 2.8
17.91	2	34	93.6	+ 8.6	16.88	7	38	94.6	+ 8.8	15.84	8	41	95.3	+ 8.6	18.48	2	44	95.9	+ 3.5	17.93	2	54	98.6	− 2.6
17.85	2	34	93.6	+ 9.9	18.90	2	38	94.6	+ 9.6	18.05	2	41	95.3	+13.7	18.38	2	44	95.9	+ 3.6	18.29	2	54	98.6	− 0.4
17.42	2	35	93.7	+ 2.0	16.89	6	38	94.6	+ 9.8	17.96	2	42	95.4	− 0.5	18.06	2	44	95.9	+13.8	17.20	2	54	98.6	+17.0
17.64	2	35	93.7	+ 3.8	18.13	2	38	94.6	+10.6	17.48	2	42	95.4	+ 2.2	15.82	8	44	95.9	+14.9	17.00	6	55	98.7	+16.0
18.64	2	35	93.7	+ 7.2	16.94	7	38	94.6	+11.4	17.27	2	42	95.4	+ 5.6	18.39	2	44	96.0	+ 1.0	18.12	2	55	98.7	+16.6
17.54	2	35	93.8	+ 4.6	18.14	2	38	94.6	+11.9	17.52	2	42	95.4	+ 7.0	17.82	2	44	96.0	+ 1.7	18.47	2	55	98.8	− 1.0
17.47	2	35	93.8	+ 7.2	17.73	2	38	94.6	+12.2	16.86	7	42	95.4	+ 7.2	18.72	2	44	96.0	+ 5.9	18.52	2	55	98.8	+15.1
18.52	2	35	93.8	+11.1	16.96	2	38	94.6	+13.9	18.40	2	41	95.4	+ 9.1	17.37	2	44	96.0	+ 7.6	17.72	2	55	98.8	+16.4
16.58	7	35	93.8	+11.3	16.57	7	39	94.7	+ 1.4	17.27	4	42	95.4	+10.1	17.48	2	44	96.0	+11.0	17.89	2	55	98.8	+17.2
18.16	2	36	93.9	+ 2.6	17.94	2	39	94.7	+ 6.8	17.78	2	41	95.4	+11.0	17.78	2	44	96.0	+15.1	17.59	2	56	99.0	− 1.0
17.54	2	36	93.9	+ 5.5	17.35	2	39	94.7	+ 8.3	17.52	2	42	95.4	+11.1	18.36	2	44	96.0	+15.4	15.30	9	56	99.0	− 0.7

25 prec. + 76^{s}.8, + 3′ 18″

201s—260s					261s—320s					321s—380s					381s—440s					441s—500s				
Mag.		α 32^{m}	x	$y+10'$	Mag.		α 33^{m}	x	$y+10'$	Mag.		α 33^{m}	x	$y+10'$	Mag.		α 33^{m}	x	$y+10'$	Mag.		α 33^{m}	x	$y+10'$
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
17.02	2	56	99.0	+16.2	16.74	7	7	1.7	− 3.4	17.20	2	16	4.0	− 4.1	18.68	2	23	5.8	+15.2	15.92	7	34	8.4	+16.6
16.69	7	56	99.0	+16.6	17.20	2	7	1.7	− 2.4	15.80	8	16	4.0	− 3.1	17.58	2	23	5.8	+16.6	18.32	2	34	8.5	+16.4
16.49	7	56	99.1	− 3.0	17.59	2	7	1.8	− 2.6	17.46	2	16	4.0	− 1.8	15.47	9	23	5.8	+18.2	17.08	6	34	8.6	− 1.6
15.80	6	56	99.1	− 1.3	17.44	2	7	1.8	− 1.6	17.59	2	16	4.0	− 0.9	16.54	7	24	5.9	− 0.2	17.24	2	34	8.6	− 1.0
17.89	2	56	99.1	− 0.4	17.32	4	7	1.8	− 0.2	16.38	7	16	4.0	− 0.4	18.12	2	24	5.9	+15.8	17.94	2	34	8.6	− 0.4
18.61	2	57	99.2	− 2.0	18.28	2	7	1.8	+15.2	17.20	2	16	4.0	+16.4	15.70	8	24	6.0	− 3.6	18.24	2	34	8.6	+15.0
18.22	2	57	99.2	− 1.4	17.18	4	8	1.9	− 0.6	17.28	2	16	4.0	+16.5	17.37	2	24	6.0	− 3.4	18.16	2	34	8.6	+15.3
15.99	7	57	99.2	− 1.2	17.63	2	8	1.9	− 0.4	15.54	9	16	4.1	− 3.6	17.21	4	24	6.0	+15.4	16.40	7	34	8.6	+15.7
17.25	4	57	99.2	− 0.9	17.31	2	8	1.9	+17.6	18.32	2	16	4.1	− 2.2	17.17	2	24	6.0	+16.3	16.28	7	34	8.6	+16.6
17.65	2	57	99.2	0.0	17.44	2	8	1.9	+18.0	16.87	7	16	4.1	− 2.0	18.37	2	24	6.1	+15.6	12.26	14	35	8.7	+15.7
17.99	2	57	99.2	+16.5	17.25	4	8	2.1	− 1.2	17.19	6	16	4.1	− 1.0	17.78	2	25	6.2	− 1.0	17.04	6	35	8.8	− 1.0
17.40	2	57	99.3	− 0.8	18.27	2	9	2.2	+16.6	16.87	7	16	4.1	− 0.9	18.30	2	25	6.2	− 0.6	18.74	2	35	8.8	− 0.4
15.91	8	58	99.4	− 0.5	17.36	2	9	2.2	+17.4	17.54	2	17	4.2	− 2.7	15.63	8	25	6.2	0.0	18.08	2	35	8.8	+16.9
15.93	8	58	99.4	+15.1	18.28	2	9	2.3	− 3.9	17.10	2	17	4.2	+16.7	17.04	2	25	6.2	+16.2	17.51	2	36	8.9	− 2.2
17.85	2	58	99.6	− 1.4	18.14	2	9	2.3	− 0.8	18.50	2	17	4.2	+16.9	15.22	8	25	6.2	+17.8	17.26	2	37	9.2	− 2.5
15.94	8	58	99.6	+15.4	17.14	4	10	2.4	− 3.6	13.15	11	17	4.2	+17.8	17.52	2	25	6.3	− 1.6	17.58	2	37	9.2	− 2.4
15.74	8	58	99.6	+15.5	16.77	7	10	2.4	− 0.6	17.06	2	17	4.2	+18.2	17.04	4	25	6.4	− 3.6	18.44	2	38	9.4	− 1.8
16.36	7	58	99.6	+16.1	18.84	2	9	2.4	+16.0	16.85	7	17	4.2	+18.4	16.92	5	26	6.4	− 3.4	18.23	2	38	9.4	0.0
16.81	6	59	99.7	− 1.8	18.54	2	10	2.4	+16.4	17.97	2	17	4.3	− 4.1	17.46	2	26	6.4	− 1.9	18.08	2	38	9.5	+15.8
18.58	2	59	99.8	+15.8	18.62	2	10	2.6	− 3.2	17.85	2	17	4.3	− 2.4	17.90	2	26	6.4	− 1.2	18.29	2	39	9.7	− 1.3
18.46	2	59	99.8	+16.4	18.42	2	10	2.6	+18.0	18.18	2	18	4.4	− 0.4	17.26	2	26	6.4	− 1.0	18.24	2	39	9.8	+15.4
17.67	2	60	99.9	− 1.1	17.17	2	10	2.6	+18.2	18.16	2	17	4.4	+16.1	17.14	2	26	6.6	− 2.2	17.64	2	40	9.9	− 2.2
18.61	2	60	0.0	− 0.5	17.93	2	11	2.7	+16.2	18.68	2	18	4.6	− 3.4	15.92	8	26	6.6	− 1.2	18.38	2	40	9.9	− 0.4
15.21	10	60	0.0	+17.5	15.73	8	11	2.7	+18.4	18.40	2	19	4.6	− 3.3	17.20	6	26	6.6	− 1.1	17.70	2	40	10.0	− 1.8
17.07	6	61	0.2	− 1.2	17.08	6	11	2.8	− 3.0	18.54	2	19	4.6	+15.8	17.68	2	26	6.6	+16.8	18.47	2	40	10.0	− 1.6
17.37	2	61	0.2	+16.8	18.62	2	11	2.8	− 0.5	17.26	4	19	4.7	− 2.1	17.23	2	27	6.7	− 2.6	17.36	2	40	10.0	− 0.6
18.48	2	61	0.3	− 0.8	18.68	2	11	2.8	+15.4	17.10	2	19	4.8	− 4.0	17.82	3	27	6.8	− 0.2	16.60	7	40	10.0	+16.0
16.34	7	62	0.4	− 2.6	17.30	2	11	2.8	+15.9	17.22	2	19	4.8	− 3.4	18.58	2	28	7.0	+15.8	17.44	2	40	10.1	− 1.4
17.98	2	62	0.4	− 1.6	16.89	7	11	2.8	+16.6	18.18	2	19	4.8	− 3.0	18.34	2	28	7.0	+16.7	17.56	2	41	10.2	+15.4
17.44	2	62	0.4	+17.0	18.55	2	12	2.9	+16.4	17.54	2	19	4.8	− 2.6	13.36	13	28	7.0	+17.0	15.61	8	41	10.3	− 0.9
16.96	7	62	0.4	+17.7	17.62	2	12	2.9	+17.8	17.56	2	19	4.8	− 0.2	17.89	2	28	7.1	− 2.8	18.60	2	41	10.3	+15.0
16.09	8	62	0.4	+17.8	17.78	2	12	3.0	− 2.8	18.47	2	19	4.8	+15.7	17.44	2	28	7.1	− 2.7	18.00	2	41	10.3	+15.7
18.42	2	62	0.6	+16.2	16.31	7	12	3.0	− 2.0	18.38	2	19	4.8	+15.9	16.08	7	29	7.2	+15.1	15.33	9	42	10.4	− 1.9
17.71	2	63	0.7	− 1.3	17.64	2	12	3.0	− 1.9	17.47	2	19	4.8	+16.6	17.56	2	29	7.2	+15.4	18.13	2	42	10.4	− 1.6
17.35	2	63	0.8	− 2.0	16.94	7	12	3.0	− 0.2	18.44	2	20	4.9	+15.7	17.22	2	29	7.4	− 2.6	17.34	2	42	10.4	− 1.0
16.74	7	63	0.8	+17.3	18.25	2	12	3.1	− 3.7	18.07	2	20	5.0	+16.4	17.42	2	30	7.4	− 1.9	17.86	2	42	10.6	− 1.4
16.38	7	63	0.8	+17.8	18.22	2	13	3.2	− 1.0	17.12	2	20	5.1	− 3.9	17.92	2	30	7.4	− 1.6	15.60	8	42	10.6	+15.5
17.15	2	64	0.9	− 3.8	18.61	2	13	3.2	+15.4	18.15	2	20	5.1	− 0.3	16.08	8	30	7.4	− 1.2	16.92	7	43	10.7	− 1.0
16.06	7	64	0.9	− 2.2	16.62	7	13	3.2	+16.4	18.65	2	20	5.1	− 0.1	18.29	2	29	7.4	+15.7	18.36	2	43	10.7	+15.8
17.62	2	64	0.9	− 1.8	17.00	5	13	3.2	+17.2	17.78	2	21	5.2	− 1.0	17.35	2	30	7.6	− 2.6	17.73	2	44	10.9	+15.8
18.37	2	64	0.9	− 1.5	17.88	2	13	3.3	− 2.8	18.28	2	21	5.2	− 0.8	18.44	2	30	7.6	− 2.2	17.76	2	44	11.0	+14.4
17.50	2	64	1.0	− 3.0	17.29	2	13	3.3	+15.5	17.12	2	21	5.2	+16.0	18.58	2	30	7.6	− 1.8	17.22	2	44	11.1	− 0.9
16.17	7	64	1.0	− 2.2	16.91	2	13	3.3	+18.0	17.20	2	21	5.2	+16.4	13.73	13	31	7.6	− 0.1	17.23	2	44	11.1	− 0.8
15.67	7	64	1.0	+15.0	18.00	2	14	3.4	− 1.6	16.49	7	21	5.2	+17.2	16.86	7	30	7.6	+16.6	17.24	2	44	11.1	+ 2.2
15.67	8	64	1.1	− 3.4	16.46	7	14	3.4	− 1.0	17.62	2	21	5.2	+17.4	17.42	2	30	7.6	+16.8	17.78	2	44	11.1	+ 3.2
17.62	2	64	1.1	− 2.0	14.61	10	13	3.4	+15.0	17.31	2	21	5.3	− 3.6	17.15	2	30	7.6	+17.4	17.91	2	44	11.1	+ 3.8
17.18	2	64	1.1	− 1.8	18.54	2	14	3.4	+15.4	17.87	2	21	5.3	− 1.1	17.40	2	31	7.7	− 2.6	17.04	3	44	11.1	+ 4.1
16.36	7	64	1.1	+15.4	17.42	2	13	3.4	+18.2	16.12	8	21	5.3	+15.8	18.60	2	31	7.7	− 0.5	17.36	2	44	11.1	+ 8.4
17.82	2	64	1.1	+16.6	18.42	2	14	3.5	− 0.8	16.45	7	21	5.3	+16.7	17.38	2	31	7.7	+15.3	15.35	10	45	11.2	+ 1.7
18.54	2	65	1.3	− 3.0	16.46	7	15	3.6	− 3.6	18.42	2	21	5.3	+17.2	16.91	7	31	7.8	− 2.2	17.32	2	45	11.2	+ 2.2
18.54	2	65	1.3	− 2.0	18.26	2	14	3.6	+16.4	16.62	7	22	5.4	− 2.6	18.54	2	31	7.8	+15.2	18.03	2	45	11.2	+ 3.4
18.77	2	65	1.3	− 1.8	14.75	10	14	3.6	+17.6	17.61	2	22	5.4	− 2.4	14.42	12	31	7.8	+16.0	17.90	2	45	11.2	+ 4.8
17.82	2	66	1.4	− 0.8	18.24	2	15	3.7	− 1.0	18.40	2	22	5.4	− 1.4	15.33	9	31	7.8	+17.2	17.06	7	45	11.2	+10.3
17.14	5	66	1.4	+15.1	17.14	4	15	3.8	− 2.6	16.11	7	23	5.6	− 3.2	17.06	2	32	7.9	− 0.2	17.36	2	45	11.2	+10.4
18.70	2	65	1.4	+15.2	19.02	2	15	3.8	− 1.4	15.01	10	22	5.6	− 2.6	18.56	2	33	8.2	− 1.6	17.17	6	45	11.2	+12.3
17.92	2	66	1.4	+16.9	17.16	6	15	3.8	+15.5	18.00	2	22	5.6	− 1.6	15.95	8	33	8.3	− 1.6	17.16	2	45	11.2	+14.2
17.82	2	66	1.6	− 2.6	17.07	5	15	3.8	+15.9	18.19	2	22	5.6	+15.2	17.03	4	33	8.3	+17.4	17.72	2	45	11.3	+ 3.7
17.44	2	66	1.6	− 0.9	18.64	2	15	3.8	+16.0	17.54	2	23	5.6	+17.4	15.72	8	34	8.4	− 2.0	16.96	2	45	11.3	+14.0
14.64	10	66	1.6	+15.3	17.84	2	16	3.9	− 3.6	18.07	2	23	5.7	+16.3	14.65	10	34	8.4	− 0.2	17.24	2	46	11.4	+ 0.9
16.87	3	66	1.6	+16.8	17.49	2	16	3.9	− 0.5	18.74	2	23	5.7	+16.8	16.99	2	33	8.4	+16.4	17.93	2	46	11.4	+ 1.4

25 pree. $+ 76^{s}.8$, $+ 3' 18''$

19$^{\mathrm{h}}$

Area 111. Supplementary Stars

+0°, −0°

501*s*—530*s*					531*s*—560*s*					561*s*—590*s*					591*s*—620*s*				
Mag.		α 33$^{\mathrm{m}}$	x	$y+10'$	Mag.		α 33$^{\mathrm{m}}$	x	$y+10'$	Mag.		α 33$^{\mathrm{m}}$	x	$y+10'$	Mag.		α 33$^{\mathrm{m}}$	x	$y+10'$
		s	′	′			s	′	′			s	′	′			s	′	′
17.93	2	46	11.4	+ 1.8	17.60	2	48	12.0	+ 5.4	14.13	12	51	12.8	+ 4.5	17.48	2	53	13.3	+ 6.4
15.65	7	46	11.4	+ 3.1	17.81	2	48	12.0	+ 6.9	18.32	2	51	12.8	+ 7.0	17.21	2	53	13.3	+ 6.8
18.30	2	46	11.4	+ 4.4	16.87	7	48	12.0	+ 7.7	17.12	4	51	12.8	+10.1	17.88	2	53	13.3	+ 9.8
17.70	2	46	11.4	+ 5.4	17.90	2	48	12.0	+ 8.4	18.70	2	51	12.8	+10.8	18.43	2	54	13.4	+ 7.2
16.16	8	45	11.4	+ 7.0	15.70	7	48	12.0	+ 9.6	16.94	6	51	12.8	+13.1	13.98	13	53	13.4	+ 8.2
17.15	5	45	11.4	+ 7.3	17.45	2	48	12.0	+10.2	16.71	7	51	12.8	+13.6	17.98	2	53	13.4	+ 9.0
16.43	7	45	11.4	+ 8.3	18.69	2	48	12.1	+13.6	15.44	8	52	12.9	+ 2.5	17.42	2	53	13.4	+ 9.2
16.53	7	45	11.4	+15.3	15.90	7	49	12.2	+ 8.0	18.43	2	52	12.9	+ 3.4	16.99	7	53	13.4	+10.8
18.58	2	46	11.5	+ 0.8	16.97	5	49	12.2	+14.2	15.27	10	52	12.9	+ 5.0	16.85	7	54	13.5	+ 5.7
17.62	2	46	11.6	− 0.2	17.82	2	49	12.2	+14.6	18.43	2	52	12.9	+ 6.8	16.91	7	54	13.5	+ 8.7
18.32	2	46	11.6	+ 1.5	18.23	2	49	12.3	+ 1.1	18.21	2	52	13.0	+ 0.8	18.52	2	54	13.6	+ 5.9
18.66	2	46	11.6	+ 3.2	18.25	2	50	12.4	+ 0.4	18.56	2	52	13.0	+ 1.5	16.64	7	54	13.6	+ 7.6
17.63	2	46	11.6	+ 4.8	17.50	2	50	12.4	+ 1.2	18.10	2	52	13.0	+ 2.3	17.10	2	54	13.6	+10.0
18.58	2	46	11.6	+ 6.4	17.95	2	50	12.4	+ 1.5	16.42	7	52	13.0	+ 6.0	14.11	11	55	13.8	+ 9.2
17.52	2	47	11.6	+ 7.4	18.74	2	49	12.4	+ 2.8	16.08	8	52	13.0	+ 8.2	17.73	2	55	13.8	+ 9.3
18.14	2	46	11.6	+ 8.0	17.42	2	50	12.4	+ 5.6	17.42	2	52	13.0	+ 9.7	16.84:	6	55	13.8	+10.8
17.52	2	46	11.6	+ 9.0	17.02	5	50	12.4	+ 6.5	16.83	5	52	13.0	+10.0	15.76	8	57	14.2	+ 5.2
17.73	2	46	11.6	+13.7	18.12	2	49	12.4	+ 8.4	17.44	2	52	13.0	+11.2	18.05	2	57	14.2	+ 7.4
17.78	2	47	11.7	+ 3.4	17.89	2	50	12.4	+11.0	18.62	2	52	13.1	+ 0.9	17.21	2	57	14.2	+11.2
16.04	7	47	11.7	+10.6	17.42	2	50	12.4	+11.8	18.46	2	52	13.1	+ 3.3	18.00	2	57	14.3	+ 4.4
17.72	2	47	11.7	+10.8	17.82	2	50	12.5	+10.3	18.21	2	52	13.1	+ 4.4	18.33	2	57	14.3	+ 7.4
18.81	2	47	11.8	+ 5.7	16.95	7	50	12.6	+ 0.4	17.13	2	52	13.1	+ 5.4	15.36	8	58	14.4	+ 4.8
17.92	2	47	11.8	+14.4	17.60	2	50	12.6	+ 2.8	15.58	8	53	13.2	+ 3.2	18.04	2	57	14.4	+ 7.9
17.05	7	48	11.9	0.0	16.60	7	50	12.6	+ 5.4	18.02	2	53	13.2	+ 4.9	18.11	2	58	14.5	+ 6.8
17.26	2	48	11.9	+ 3.2	16.63	7	50	12.6	+ 5.8	18.46	2	53	13.2	+ 6.1	15.68	8	58	14.6	+ 8.2
18.52	2	48	11.9	+ 3.7	18.22	2	50	12.6	+ 7.8	18.14	2	53	13.2	+ 7.2	17.21	2	59	14.8	+ 6.0
18.34	2	48	11.9	+ 7.0	17.80	2	50	12.6	+ 9.3	17.14	2	53	13.2	+ 9.4	17.59	2	59	14.8	+ 7.0
13.16	13	48	12.0	− 0.2	17.32	2	50	12.6	+10.3	17.06	3	53	13.2	+11.3	17.21	2	59	14.8	+ 7.1
18.27	2	48	12.0	+ 2.8	17.14	6	51	12.7	+ 2.6	15.14	10	53	13.3	+ 2.2	15.55	8	59	14.8	+ 7.6
18.32	2	48	12.0	+ 4.0	17.52	2	51	12.8	+ 3.7	17.15	2	53	13.3	+ 3.6	17.08	2	60	14.9	+ 6.0

25 prec. + 76$^{\mathrm{s}}$.8, + 3′ 19″

20$^{\mathrm{h}}$

Area 112. Center for 1900: 20$^{\mathrm{h}}$ 37$^{\mathrm{m}}$ + 0° 10′ (15′ × 15′)

+ 0°

1—20					21—40					41—60					61—80					81—100				
Mag.		α 36$^{\mathrm{m}}$	x	$y+10'$	Mag.		α 36$^{\mathrm{m}}$	x	$y+10'$	Mag.		α 36$^{\mathrm{m}}$	x	$y+10'$	Mag.		α 36$^{\mathrm{m}}$	x	$y+10'$	Mag.		α 37$^{\mathrm{m}}$	x	$y+10'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
17.41	1	46.6	96.66	14 38	17.88	3	50.7	97.67	11 27	17.83	3	54.5	98.62	0 55	17.50	3	58.0	99.51	0 47	15.40	10	0.6	0.14	2 25
18.08	3	46.6	96.66	7 56	17.48	3	50.8	97.70	9 20	17.80	3	54.7	98.68	0 49	17.80	3	58.1	99.53	2 46	18.21	2	0.6	0.15	8 49
17.95	3	46.7	96.68	7 46	16.93	9	51.0	97.75	6 58	15.14	12	54.8	98.71	4 24	17.84	3	58.1	99.53	7 30	17.98	3	0.6	0.15	14 59
17.99	3	47.3	96.83	12 33	16.74	9	51.7	97.93	9 20	17.65	3	55.0	98.74	10 21	15.87	9	58.2	99.55	11 07	13.41	14	1.2	0.30	1 39
15.46	10	47.4	96.84	13 23	16.63	9	51.8	97.94	0 16	17.91	3	55.0	98.76	3 45	16.36	10	58.4	99.59	12 35	17.88	3	1.3	0.33	5 54
15.83	10	47.4	96.86	11 03	17.91	3	51.8	97.95	6 49	15.13	11	55.4	98.84	6 58	16.83	9	58.4	99.59	3 09	17.83	3	1.3	0.33	7 37
17.71	2	47.8	96.95	13 31	16.90	6	52.4	98.10	11 19	15.07	12	55.5	98.87	1 04	16.68	9	58.6	99.65	12 36	17.94	3	1.5	0.38	1 59
17.05	5	48.2	97.05	0 26	16.65	10	52.6	98.14	5 58	18.02	3	55.8	98.95	14 22	16.94	9	58.7	99.68	7 40	18.03	3	1.6	0.40	11 05
14.05	17	48.4	97.11	10 59	15.72	9	52.6	98.14	3 25	15.26	12	56.6	99.14	13 25	17.95	3	58.8	99.71	2 36	18.17	3	1.6	0.41	0 54
17.62	3	48.6	97.14	4 44	18.02	3	52.8	98.21	5 18	17.53	3	56.6	99.14	0 36	16.16	10	58.8	99.71	5 08	18.06	3	1.7	0.43	10 58
18.05	3	48.8	97.20	11 54	16.43	10	52.9	98.23	4 46	15.44	12	56.7	99.18	8 26	17.87	3	58.9	99.73	8 50	15.82	10	2.2	0.55	6 21
17.62	3	48.9	97.23	0 27	18.17	3	53.0	98.26	6 26	17.10	5	57.0	99.26	12 39	16.55	5	59.3	99.83	1 40	17.07	5	2.3	0.57	12 42
15.18	12	49.0	97.26	13 45	13.49	18	53.1	98.28	12 42	16.70	1	57.2	99.31	6 56	17.05	9	59.3	99.83	5 48	17.52	3	2.3	0.57	1 49
16.66	9	49.2	97.29	1 38	14.03	17	53.3	98.32	5 42	15.80	9	57.3	99.33	4 59	18.01	3	59.4	99.86	7 16	17.64	3	2.4	0.60	13 34
17.07	5	49.2	97.30	11 10	17.14	5	53.3	98.33	0 00	17.06	5	57.3	99.33	11 15	17.83	3	59.5	99.87	1 07	16.80	10	2.5	0.63	5 00
18.08	1	49.4	97.35	14 43	17.67	3	53.4	98.34	6 42	17.04	8	57.3	99.33	7 14	18.02	3	60.0	99.99	11 53	17.43	3	2.6	0.64	8 03
17.94	3	50.0	97.50	11 59	17.80	3	53.7	98.43	14 44	14.58	14	57.6	99.39	12 17	17.69	2	60.2	0.04	11 08	12.34	17	2.6	0.64	2 21
17.85	3	50.3	97.57	5 14	18.08	3	54.2	98.55	12 47	14.75	14	57.7	99.43	6 51	16.70	9	60.3	0.07	8 16	17.69	3	2.7	0.68	0 59
13.91	16	50.4	97.60	13 32	18.23	3	54.5	98.62	3 23	15.86	10	57.8	99.44	6 11	16.86	9	60.4	0.10	1 54	16.42	10	2.7	0.68	12 54
18.12	3	50.6	97.66	0 58	18.03	3	54.5	98.62	6 35	17.48	3	57.8	99.44	13 02	13.75	17	60.5	0.12	6 55	17.05	9	3.0	0.75	7 32

25 prec. + 76$^{\mathrm{s}}$.8, + 5′ 17″

101—160				161—220				221—280				281—335			
Mag.	α 37^m	x	$y+10'$	Mag.	α 37^m	x	$y+10'$	Mag.	α 37^m	x	$y+10'$	Mag.	α 37^m	x	$y+10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.47 1	3.1	0.77	1 42	17.23 6	14.1	3.52	3 17	17.61 3	24.1	6.02	4 37	17.72 3	34.7	8.68	3 19
15.77 10	3.1	0.78	2 16	15.63 12	14.4	3.60	4 52	17.03 8	24.1	6.02	0 58	18.05 3	34.9	8.72	11 17
15.21 11	3.1	0.78	2 09	16.77 9	14.4	3.60	13 34	17.83 3	24.1	6.04	3 35	18.20 3	35.0	8.76	3 33
18.08 3	3.9	0.98	13 11	14.84 13	14.6	3.64	13 50	14.27 14	24.4	6.11	13 22	16.72 9	35.1	8.77	2 56
17.77 3	4.0	0.99	14 29	17.49 3	14.6	3.66	11 22	17.77 3	24.5	6.12	13 58	18.23 3	35.4	8.85	9 19
18.01 3	4.2	1.05	8 32	18.46 3	14.6	3.66	7 40	18.44 3	24.7	6.18	3 16	17.14 5	35.7	8.92	1 42
18.13 3	4.5	1.12	6 42	18.22 3	14.9	3.72	7 30	18.15 3	24.8	6.19	12 03	17.98 3	36.1	9.02	3 41
17.32 5	4.9	1.22	3 47	18.22 3	14.9	3.72	8 49	17.84 3	24.9	6.23	8 24	17.79 3	36.6	9.14	12 48
17.06 9	4.9	1.22	4 31	16.66 10	15.2	3.79	2 36	18.44 3	25.2	6.29	4 25	18.11 3	36.6	9.15	12 09
13.70 18	5.3	1.32	2 08	16.57 10	15.2	3.81	14 29	18.16 3	25.3	6.32	10 29	17.32 3	36.9	9.23	7 47
17.99 3	5.3	1.33	1 29	17.09 5	15.4	3.86	13 55	15.06 13	25.4	6.34	2 34	18.25 3	37.6	9.41	5 29
17.91 3	5.4	1.34	12 03	18.08 3	15.7	3.93	8 48	17.05 9	25.6	6.40	3 24	16.81 6	37.7	9.43	15 00
17.45 3	5.7	1.42	9 45	13.03 17	16.0	3.99	14 18	15.88 8	25.7	6.42	1 19	17.86 3	37.8	9.45	7 19
15.64 9	5.8	1.44	6 52	17.38 5	16.2	4.04	8 07	18.37 3	25.7	6.43	2 44	17.44 3	37.8	9.46	14 47
17.91 3	5.9	1.47	12 28	9.56w 9	16.6	4.16	5 16	15.69 12	25.7	6.43	2 29	14.64 14	38.0	9.51	0 10
17.87 3	6.2	1.54	0 15	16.95 8	16.7	4.18	4 07	18.14 3	26.0	6.51	9 24	17.76 3	38.3	9.57	0 06
17.56 3	6.3	1.58	0 19	15.86 10	16.8	4.21	2 47	18.24 3	26.3	6.58	3 47	17.85 3	38.4	9.60	4 04
14.71 14	6.6	1.64	12 08	15.29 12	17.2	4.29	12 40	15.06 13	26.4	6.60	6 01	16.52 9	38.6	9.65	11 39
18.11 3	7.2	1.81	3 46	16.86 9	17.5	4.38	2 05	17.90 3	27.0	6.74	3 19	18.25 3	38.6	9.66	10 30
18.11 3	7.3	1.83	11 23	14.56 14	17.7	4.43	3 42	17.22 6	27.0	6.74	4 49	17.40 3	38.8	9.69	11 12
16.79 9	7.4	1.84	0 56	18.41 3	18.0	4.49	3 13	17.39 5	27.0	6.75	4 11	14.75 14	38.9	9.73	4 15
17.93 3	7.5	1.88	8 33	16.91 9	18.4	4.61	8 36	17.60 3	27.5	6.87	6 08	14.12 15	39.0	9.76	2 14
18.25 1	7.7	1.93	12 38	13.83 17	18.5	4.63	12 47	16.70 9	27.9	6.98	9 45	17.60 3	39.0	9.76	3 13
17.17 9	7.8	1.95	6 22	17.49 3	18.6	4.66	8 02	17.15 4	28.8	7.21	2 43	18.02 3	39.0	9.76	14 14
18.22 3	7.8	1.96	1 44	14.49 14	18.8	4.70	11 01	18.39 3	29.0	7.26	6 00	16.84 9	39.2	9.79	0 52
17.03 9	7.9	1.98	4 29	17.19 4	19.3	4.83	6 03	17.35 3	29.4	7.34	12 52	16.50 9	39.3	9.82	12 00
15.64 12	8.1	2.02	7 40	17.80: 1	19.4	4.84	9 05	17.71 3	29.6	7.39	0 59	18.02 3	39.4	9.84	2 57
18.47 3	8.2	2.04	8 02	17.75 3	19.7	4.92	2 15	13.77 17	29.6	7.41	13 52	17.83 3	39.7	9.92	11 36
18.12 3	8.2	2.05	4 10	18.57 3	19.8	4.94	4 00	17.71 3	29.8	7.45	2 10	17.77 3	39.9	9.97	4 55
14.39 13	8.2	2.06	6 57	17.10 6	19.8	4.96	13 16	16.68 9	30.4	7.59	14 17	14.93 13	40.3	10.07	13 30
15.67 11	8.9	2.22	0 27	14.18 13	20.0	5.00	2 57	18.18 3	30.6	7.65	4 26	17.42 3	40.8	10.21	1 52
18.36 3	9.0	2.26	5 43	15.56 11	20.1	5.02	6 42	17.55 3	30.9	7.73	10 32	17.84 3	41.1	10.27	4 57
17.84 3	9.2	2.29	8 17	18.18 3	20.3	5.07	2 32	15.89 11	30.9	7.73	8 58	17.92 3	41.2	10.29	11 23
18.24 3	9.3	2.32	2 45	14.60 14	20.5	5.12	11 41	16.93 9	31.0	7.74	4 11	15.09 11	41.4	10.34	6 11
17.02 8	9.3	2.33	9 25	16.91 7	20.5	5.12	12 33	17.28 5	31.4	7.84	9 53	15.09 13	42.0	10.51	1 59
16.86 9	9.5	2.37	0 36	17.34 6	20.6	5.14	8 22	17.55 3	31.4	7.85	13 03	17.73 3	42.3	10.57	4 54
18.27 3	9.5	2.38	2 25	18.31 3	20.6	5.15	11 12	16.00 9	31.5	7.87	5 50	18.02 3	42.6	10.65	9 38
18.17 3	9.7	2.43	3 48	17.38 3	21.0	5.25	12 53	17.17 5	31.8	7.94	1 21	17.04 3	42.8	10.71	0 43
18.33 3	9.7	2.43	9 45	18.20 3	21.0	5.26	10 37	15.49 11	32.0	7.99	13 13	16.46 10	43.2	10.81	8 52
17.10 9	9.8	2.44	4 19	18.48 3	21.0	5.26	7 35	17.97w 2	32	8.0	14 36	18.17 3	43.4	10.84	6 44
17.86 3	9.9	2.48	7 06	17.45 3	21.1	5.28	3 30	13.61 18	32.0	8.01	2 22	17.51 3	43.4	10.84	10 07
16.06 9	10.1	2.53	10 09	17.07 9	21.2	5.31	4 32	17.09 6	32.4	8.09	7 20	14.16 2	43.4	10.85	15 00
16.79 9	10.3	2.58	9 23	11.65w 15	21.4	5.34	3 09	15.06 13	32.6	8.14	6 51	17.51 3	44.0	11.01	3 26
17.98 3	10.5	2.63	2 24	15.74 11	21.4	5.36	6 51	17.57 3	32.8	8.19	8 40	16.02 10	44.2	11.05	7 57
18.51 3	10.6	2.65	4 12	15.14 12	22.1	5.53	11 26	18.20 3	33.0	8.25	3 01	17.28 1	44.5	11.12	0 45
15.51 12	10.6	2.65	1 15	14.19 16	22.2	5.54	13 59	18.28 3	33.1	8.28	7 39	18.09 3	44.6	11.16	10 39
18.43 3	11.0	2.76	8 08	18.18 3	22.2	5.55	4 49	17.23 5	33.2	8.30	9 05	17.98 3	45.2	11.29	11 07
18.10 3	12.0	2.99	14 07	18.14 3	22.2	5.56	1 43	16.11 10	33.3	8.33	9 27	17.39 3	45.3	11.32	1 13
15.68 10	12.3	3.07	12 11	18.26 3	22.4	5.59	3 04	17.04 5	33.4	8.36	13 49	16.73 9	45.3	11.33	12 32
15.97 10	12.6	3.15	8 43	16.63 9	22.9	5.72	7 25	16.70 9	33.6	8.39	13 26	16.17 10	45.4	11.34	4 19
18.01 1	12.7	3.18	3 46	17.99 3	23.0	5.76	11 15	16.84 9	33.7	8.42	11 29	17.80 3	45.9	11.47	4 11
14.92 13	12.9	3.22	14 00	17.92 3	23.1	5.77	14 54	17.11 5	33.7	8.42	5 49	17.56 3	45.9	11.48	6 55
17.68 3	13.0	3.26	5 03	18.06 3	23.1	5.78	14 41	14.34 15	33.8	8.44	7 45	17.87 1	46.5	11.62	9 14
18.42 3	13.4	3.34	7 25	16.00 10	23.2	5.81	1 04	18.15 3	34.0	8.49	11 08	16.72 9	46.5	11.63	3 11
17.02 9	13.4	3.35	3 28	16.82 9	23.5	5.88	7 33	17.94w 2	34	8.5	14 48	17.10 5	46.6	11.65	3 59
14.15 16	13.4	3.36	0 37	16.57 9	23.5	5.88	6 18	18.05 3	34.0	8.51	14 24				
17.97w 2	14	3.4	14 48	11.70w 15	23.7	5.92	2 56	17.12 5	34.1	8.52	0 26				
16.01 10	13.8	3.44	8 04	18.51 3	23.8	5.95	7 21	18.35 3	34.1	8.53	2 52				
12.76 16	13.8	3.44	11 23	15.39 12	23.9	5.97	14 15	15.50 11	34.3	8.58	7 03				
17.47 3	13.8	3.45	14 56	16.84 7	24.1	6.02	13 35	17.94 3	34.5	8.63	1 11				

25 prec. + $76^{s}.8$, + 5′ 18″

1s—60s				
Mag.		α 36^{m}	x	$y+10'$
		s	′	′
16.74	7	33	93.2	+ 2.4
17.80	2	34	93.4	+ 2.4
17.79	2	34	93.4	+ 3.4
17.95	2	33	93.4	+ 5.0
16.29	8	34	93.4	+ 7.3
16.72	7	34	93.6	+ 9.2
17.95	2	35	93.8	+ 3.0
16.58	8	36	93.9	+ 1.3
16.56	8	36	93.9	+ 4.2
17.95	2	36	94.0	+ 6.2
14.95	11	36	94.0	+ 9.8
17.91	2	36	94.1	+ 1.1
16.67	8	36	94.1	+ 2.4
17.91	2	36	94.1	+ 2.6
17.95	2	36	94.1	+ 5.8
17.95	2	37	94.2	+ 7.8
17.87	2	38	94.4	− 0.6
17.51	2	38	94.4	+ 5.0
17.53	2	38	94.4	+ 7.6
16.67	8	38	94.4	+10.5
13.56	15	38	94.6	+ 1.7
17.94	2	38	94.6	+10.4
17.91	2	39	94.7	+ 0.9
17.81	2	39	94.8	+ 7.4
17.57	2	39	94.8	+11.2
16.42	8	40	94.9	+ 6.3
16.54	8	40	95.0	− 0.2
16.80	7	40	95.0	+ 2.0
17.93	2	40	95.0	+ 8.5
17.88	2	40	95.1	− 1.4
17.99	2	40	95.1	+ 1.3
17.17	2	40	95.1	+ 3.4
15.37	10	40	95.1	+ 6.4
17.91	2	40	95.1	+ 9.2
16.11	8	41	95.2	− 1.4
15.69	8	42	95.4	+ 0.7
18.03	2	41	95.4	+ 2.6
18.03	2	42	95.4	+ 7.2
16.67	8	41	95.4	+ 7.4
18.01	2	41	95.4	+ 8.6
17.43	2	41	95.4	+12.4
17.63	2	42	95.6	− 2.3
17.61	2	42	95.6	+ 1.4
16.73	8	42	95.6	+ 4.6
16.64	8	42	95.6	+12.0
17.41	2	42	95.6	+12.5
17.95	2	43	95.7	− 1.7
14.65	12	43	95.7	+ 5.0
18.01	2	43	95.7	+ 5.9
16.89	6	43	95.8	+ 4.6
14.54	12	44	95.9	− 0.2
18.04	2	44	95.9	+ 5.0
15.94	8	44	95.9	+ 5.6
15.42	7	44	95.9	+10.7
14.88	11	44	95.9	+10.8
17.99	2	44	96.0	+ 8.8
17.39	2	44	96.0	+ 9.6
16.65	8	44	96.0	+12.6
15.18	10	44	96.1	+ 3.8
16.27	8	45	96.2	− 2.7

61s—120s				
Mag.		α 36^{m}	x	$y+10'$
		s	′	′
17.95	2	45	96.2	− 0.7
17.56	2	45	96.2	+ 4.0
16.35	8	45	96.2	+ 6.4
16.67	8	45	96.2	+ 8.4
17.87	2	45	96.3	+ 5.6
17.91	2	46	96.4	− 3.2
18.01	2	46	96.4	+ 8.9
17.49	2	46	96.4	+10.4
17.59	2	46	96.6	+ 3.4
12.58	15	47	96.6	+ 4.2
15.71	9	46	96.6	+ 5.0
16.83	8	46	96.6	+ 8.2
16.07	8	47	96.8	− 2.0
17.88	2	49	97.2	− 3.6
18.05	2	49	97.2	− 0.4
17.94	2	49	97.3	− 3.3
15.29	10	50	97.6	− 3.0
17.99	2	50	97.6	− 2.4
17.75	2	52	97.9	− 3.6
15.67	8	52	97.9	− 1.7
17.01	4	52	97.9	− 0.9
16.72	7	52	98.0	− 4.0
17.95	2	52	98.0	− 3.7
18.03	2	52	98.0	− 1.4
16.70	8	52	98.0	− 0.2
17.90	2	53	98.3	− 4.2
17.43	2	53	98.3	− 0.4
15.68	8	54	98.4	− 3.2
16.07	8	54	98.4	− 2.9
16.53	8	54	98.4	− 0.6
18.13	2	54	98.4	− 0.2
14.65	11	54	98.6	− 4.7
15.16	10	54	98.6	− 3.9
16.73	8	55	98.7	− 2.4
12.87	13	55	98.8	− 2.3
17.75	2	55	98.8	− 0.4
18.09	2	56	98.9	− 0.9
16.09	8	56	98.9	− 0.4
18.01	2	56	99.0	− 2.7
17.95	2	56	99.1	− 3.2
16.31	8	56	99.1	− 1.9
17.72	2	58	99.4	− 4.5
17.97	2	58	99.4	− 3.4
16.73	8	58	99.4	− 2.0
17.93	2	58	99.4	+15.3
14.85	11	58	99.6	+15.2
16.75	8	59	99.7	− 3.4
16.77	8	59	99.7	− 1.7
14.86	11	59	99.8	− 4.9
17.43	2	60	0.0	− 5.2
15.76	8	60	0.0	− 3.7
17.94	2	60	0.1	− 4.7
17.33	2	61	0.2	− 4.2
17.95	2	61	0.2	− 3.6
17.05	4	61	0.2	− 1.4
17.90	2	61	0.3	− 5.2
15.77	8	61	0.3	+15.4
15.04	11	62	0.4	− 4.9
16.73	8	62	0.4	− 2.5
17.28	2	62	0.4	− 1.4

121s—180s				
Mag.		α 37^{m}	x	$y+10'$
		s	′	′
17.23	2	2	0.6	− 3.9
18.13	2	2	0.6	− 0.7
16.71	8	3	0.7	− 0.5
18.09	2	3	0.7	− 0.4
18.09	2	3	0.8	− 1.4
18.05	2	3	0.8	− 1.1
15.20	10	4	0.9	− 5.6
16.83	5	4	0.9	− 3.6
14.01	15	4	0.9	− 2.9
18.07	2	4	0.9	− 1.2
18.09	2	4	1.1	− 1.3
17.96	2	4	1.1	− 0.6
17.95	2	5	1.2	− 3.2
18.01	2	5	1.2	− 3.1
18.09	2	5	1.3	− 1.5
17.13	2	6	1.6	− 5.2
15.56	6	6	1.6	− 4.1
16.98	7	6	1.6	− 0.4
17.95	2	6	1.6	+15.0
17.65	2	6	1.6	+15.4
17.97	2	8	1.9	− 2.4
16.05	8	11	2.7	− 0.4
13.25	15	11	2.8	− 1.7
17.82	2	12	2.9	− 2.3
18.09	2	12	3.1	− 1.1
15.79	9	12	3.1	0.0
17.91	2	13	3.2	+16.2
18.03	2	13	3.3	− 0.9
17.10	4	14	3.4	− 2.4
15.38	9	13	3.4	+16.0
18.01	2	15	3.6	− 2.1
17.91	2	14	3.6	− 0.3
16.88	8	15	3.8	− 1.2
17.66	2	16	3.9	− 4.4
17.89	2	16	4.0	− 6.0
17.61	2	16	4.1	− 6.2
17.79	2	16	4.1	− 5.2
16.80	7	17	4.2	− 5.0
15.89	8	17	4.3	+16.6
17.81	2	18	4.4	− 5.4
17.13	2	18	4.4	− 4.8
18.17	2	18	4.5	− 0.4
17.79	2	18	4.6	− 5.6
17.77	2	18	4.6	+15.6
17.93	2	18	4.6	+16.0
15.66	6	18	4.6	+16.5
13.71	15	19	4.8	− 3.1
17.71	2	19	4.8	− 2.9
16.73	8	19	4.8	− 2.4
17.71	2	19	4.8	+16.4
17.90	2	20	4.9	− 4.8
18.11	2	20	4.9	− 0.5
16.73	7	20	5.1	− 5.9
17.84	2	20	5.1	− 5.8
17.93	2	20	5.1	− 5.4
16.82	8	20	5.1	− 2.9
18.07	2	21	5.2	− 0.8
17.15	4	21	5.2	− 0.4
17.93	2	21	5.2	+16.2
16.74	8	22	5.4	− 1.2

181s—240s				
Mag.		α 37^{m}	x	$y+10'$
		s	′	′
17.95	2	22	5.6	− 5.0
17.81	2	23	5.6	− 4.6
18.09	2	22	5.6	− 2.6
15.53	10	24	6.1	− 0.6
16.73	6	25	6.2	+16.0
16.72	6	25	6.3	+15.7
12.87	14	27	6.7	− 5.4
17.41	2	27	6.8	− 3.2
15.84	5	27	6.8	− 0.4
15.25	10	28	6.9	− 3.6
18.03	2	28	6.9	− 2.7
18.09	2	28	7.0	− 1.3
18.13	2	28	7.0	− 1.0
17.01	6	28	7.1	− 0.6
17.42	2	29	7.2	− 4.2
16.71	8	30	7.4	− 0.9
16.18	7	30	7.4	− 0.4
17.95	2	30	7.6	− 2.9
18.09	2	31	7.7	− 1.8
17.35	2	32	7.9	− 3.4
16.89	5	32	8.0	− 4.2
16.58	8	32	8.0	− 0.4
16.70	8	32	8.1	− 3.2
16.82	5	33	8.2	− 4.2
15.38	10	33	8.2	− 3.7
17.51	2	33	8.2	− 3.4
16.44	8	33	8.3	+15.1
16.89	7	35	8.7	− 1.6
16.69	8	35	8.7	+15.7
16.82	5	36	8.9	− 3.7
17.38	2	37	9.2	− 3.6
17.09	4	37	9.2	− 0.8
14.06	14	37	9.3	− 1.2
15.52	10	38	9.4	− 1.6
16.36	8	37	9.4	+15.4
17.99	2	38	9.6	− 3.4
17.93	2	38	9.6	− 2.6
17.90	2	39	9.8	− 2.8
16.70	8	40	10.1	− 4.2
18.03	2	40	10.1	− 2.2
17.31	2	44	11.1	− 3.0
17.19	2	44	11.1	− 2.4
15.13	10	45	11.2	− 3.0
15.18	11	45	11.2	− 1.0
17.86	2	46	11.4	− 3.4
16.61	8	46	11.6	− 2.8
16.45	8	46	11.6	− 1.0
17.71	2	46	11.6	− 0.6
17.97	2	46	11.6	+11.6
17.85	2	47	11.7	− 3.2
18.03	2	47	11.8	0.0
18.09	2	47	11.8	+ 3.6
17.41	2	47	11.8	+ 8.5
17.95	2	47	11.8	+11.2
17.99	2	47	11.8	+11.8
18.03	2	48	11.9	+ 1.4
17.89	2	48	11.9	+12.4
17.99	2	48	12.0	+11.5
13.42	16	48	12.0	+12.8
17.94	2	48	12.1	− 2.0

241s—292s				
Mag.		α 37^{m}	x	$y+10'$
		s	′	′
16.79	5	48	12.1	− 0.6
17.89	2	48	12.1	+12.2
18.05	2	49	12.2	+ 3.6
17.18	2	49	12.2	+12.6
18.03	2	49	12.3	+ 1.5
16.92	5	49	12.3	+ 7.8
16.84	5	50	12.4	+ 8.4
15.25	9	50	12.4	+11.2
16.27	8	50	12.5	+ 6.9
15.33	10	50	12.6	+ 2.7
16.81	5	50	12.6	+11.4
17.99	2	51	12.8	+ 7.7
17.93	2	52	12.9	0.0
15.84:	8	52	12.9	+ 1.4
18.01	2	52	13.0	+ 7.6
17.55	2	52	13.0	+ 8.1
16.87	5	52	13.0	+10.4
17.99	2	52	13.1	+ 5.8
17.35	2	53	13.2	+ 0.9
16.57	8	53	13.2	+ 4.4
18.01	2	53	13.2	+ 7.6
17.21	2	53	13.2	+10.0
17.99	2	53	13.2	+10.1
18.01	2	53	13.3	+ 4.6
17.19	2	54	13.4	− 0.3
16.88	4	54	13.4	+ 2.5
17.14	2	54	13.5	+ 0.2
16.83	5	54	13.6	+ 4.6
16.76	8	54	13.6	+ 6.2
16.69	8	55	13.7	− 0.8
13.83	16	55	13.8	+ 2.4
17.93	2	55	13.8	+ 9.9
17.95	2	56	13.9	+ 7.0
15.03	11	56	14.0	+ 8.4
14.42	12	56	14.1	+ 2.8
17.38	2	57	14.2	+ 2.0
17.86	2	57	14.2	+ 2.1
16.68	8	57	14.2	+ 7.4
16.41	8	57	14.2	+ 7.8
17.86	2	57	14.3	+10.0
14.61	12	58	14.4	+ 2.2
14.76	12	59	14.8	+ 3.6
17.43	2	59	14.8	+ 5.2
16.71	8	59	14.8	+ 5.8
16.00	7	60	14.9	+ 6.6
17.88	2	60	15.0	+ 4.3
16.63	8	60	15.0	+ 7.6
17.95	2	60	15.0	+ 8.4
17.27	2	61	15.2	+ 2.6
17.89	2	61	15.2	+ 6.6
17.93	2	62	15.4	+ 4.6
17.38	2	62	15.4	+ 5.4

25 prec. + 76$^{\mathrm{s}}$.8, + 5′ 18″

Area 113. Center for 1900: 21^h 37^m 0° 0′ (15′ × 15′)

1—30			
Mag.	α 36^m	x	y
	s	′	′ ″
18.16 3	50.0	97.51	− 9 31
18.39 3	51.1	97.78	− 4 33
18.43 3	51.5	97.87	− 5 43
16.74 8	52.6	98.16	+ 1 33
17.97 3	53.0	98.24	+ 4 24
17.90 3	53.1	98.28	− 9 18
10.58w14	53.9	98.48	− 9 38
14.08 14	54.7	98.68	+ 1 17
14.94 12	55.5	98.88	+ 3 49
18.61 3	55.6	98.90	− 2 36
18.61 3	55.9	98.98	+ 0 41
17.54 3	56.2	99.06	− 6 19
16.43 8	56.3	99.08	+ 2 34
18.39 3	56.6	99.15	− 4 12
16.08 10	57.0	99.24	+ 2 07
16.38 9	57.3	99.33	− 2 28
16.39 8	57.5	99.37	− 8 12
14.68 13	58.3	99.57	− 4 17
17.01 8	58.7	99.67	− 0 39
17.14 3	58.8	99.71	− 8 59
17.15 5	60.0	99.99	+ 2 48
17.88 3	60.3	0.08	− 3 21
18.65 3	60.9	0.23	+ 0 46
18.62 1	61.2	0.30	− 3 46
17.50 3	61.5	0.37	− 6 40
16.76 8	61.9	0.48	− 9 58
18.20 3	62.3	0.57	+ 2 32
17.14 6	64.5	1.12	− 0 23
18.22 3	64.7	1.17	− 8 46
18.24 3	65.3	1.33	− 3 53

31—60			
Mag.	α 37^m	x	y
	s	′	′ ″
15.29 11	7.2	1.80	+ 3 02
17.12 5	7.3	1.83	+ 1 16
17.73 3	8.6	2.16	− 1 30
18.29 3	8.8	2.20	+ 1 46
18.44 2	8.9	2.22	− 5 19
17.56 3	10.1	2.53	− 8 32
18.86 3	10.3	2.57	− 0 33
17.01 6	10.4	2.61	+ 4 51
18.52 3	10.8	2.70	+ 2 06
17.20 6	11.1	2.78	+ 0 17
13.43 13	11.3	2.83	+ 2 07
15.04 13	11.4	2.86	− 6 20
17.38 5	11.6	2.90	− 4 31
17.69 3	12.0	2.99	+ 2 32
17.54 3	12.0	2.99	− 6 55
14.63 12	13.0	3.25	− 6 23
18.40 3	14.3	3.57	− 5 06
17.82 3	16.0	4.00	+ 2 35
17.93 3	16.8	4.20	+ 0 22
18.48 3	16.9	4.23	− 8 22
16.80 8	17.3	4.32	+ 0 29
18.23 3	17.3	4.32	− 3 37
17.62 3	18.0	4.51	− 6 06
15.89 10	18.1	4.53	− 9 54
18.62 1	18.6	4.65	− 0 27
18.49 3	18.9	4.73	− 6 44
18.64 3	19.1	4.77	+ 1 29
18.28 3	19.5	4.88	− 2 45
16.66 7	19.6	4.91	+ 4 51
9.33w13	19.8	4.95	− 0 36

61—90			
Mag.	α 37^m	x	y
	s	′	′ ″
14.92 13	20.3	5.08	− 7 02
18.64 3	20.4	5.09	+ 1 37
14.94 9	20.4	5.11	− 1 11
9.77w14	20.5	5.12	− 0 59
18.21 3	21.9	5.47	− 6 28
18.20 3	22.3	5.58	− 0 44
16.04 10	22.6	5.65	+ 1 32
18.23 3	22.7	5.67	− 6 52
18.87 3	23.1	5.78	+ 0 32
17.90 3	24.2	6.05	+ 2 29
18.73 3	24.2	6.06	− 1 22
15.44 11	24.3	6.08	− 4 21
17.70 3	24.9	6.23	− 1 02
16.33 9	25.4	6.36	− 5 30
17.74 3	25.8	6.44	+ 3 05
18.01 3	27.4	6.84	+ 3 44
17.42 3	27.6	6.91	− 8 47
16.73 6	27.7	6.93	− 9 27
16.92 8	28.1	7.03	− 3 12
18.77 3	28.3	7.07	+ 0 17
18.93 3	28.6	7.16	− 2 15
14.80 12	28.7	7.17	− 5 55
17.72 3	29.0	7.26	+ 3 01
17.36 3	29.2	7.30	+ 3 50
17.34 3	29.5	7.38	+ 5 00
18.74 3	30.2	7.54	− 0 44
18.50 3	30.6	7.64	+ 2 35
14.51 11	31.0	7.75	+ 1 53
15.46 11	31.3	7.83	− 8 28
18.48 2	31.5	7.87	+ 2 48

91—120			
Mag.	α 37^m	x	y
	s	′	′ ″
16.29 10	31.9	7.98	− 1 32
15.28 11	33.0	8.25	− 2 19
15.18 11	33.0	8.25	− 7 40
16.21 8	33.1	8.27	− 9 44
18.21 3	33.4	8.34	+ 2 46
17.34 3	33.6	8.39	− 6 50
15.45 11	34.8	8.69	− 5 55
17.42 3	34.8	8.69	− 5 48
18.19 3	35.5	8.87	− 7 41
18.59 3	36.0	9.00	+ 3 28
16.61 8	36.6	9.14	− 8 11
16.56 8	36.8	9.20	− 5 22
18.08 3	37.1	9.28	+ 2 43
17.81 3	37.4	9.36	+ 1 02
15.23 12	37.6	9.39	− 9 33
18.16 3	38.0	9.50	− 8 48
16.60 8	38.5	9.62	− 9 26
18.37 3	38.6	9.64	+ 3 11
15.41 11	39.3	9.82	− 5 20
18.34 2	39.5	9.87	+ 4 36
16.86 8	39.9	9.98	+ 0 38
17.36 3	40.0	9.99	− 5 38
17.46 2	40.3	10.08	+ 4 30
18.21 3	40.4	10.11	− 2 44
17.80 2	41.5	10.37	− 7 07
13.41 16	43.3	10.83	+ 0 48
15.98 9	43.6	10.90	− 0 10
17.29 3	43.8	10.94	− 9 02
14.84 13	43.8	10.94	+ 0 43
18.51 3	44.3	11.07	+ 4 11

121—130			
Mag.	α 37^m	x	y
	s	′	′ ″
15.68 11	44.4	11.10	+ 0 46
16.87 8	44.5	11.12	− 4 00
17.84 3	44.6	11.14	− 3 28
17.72 3	45.1	11.28	− 8 14
17.77 3	46.3	11.58	+ 3 20
16.83 8	46.8	11.69	+ 1 10
17.60 3	47.5	11.87	+ 2 32
17.47 3	48.3	12.07	+ 3 22
18.06 3	49.4	12.34	+ 2 11
18.35 3	49.5	12.38	− 7 19

25 prec. + $76^s.8$, + 6′ 47″

21^h

Area 113. Supplementary Stars

+ 0°, − 0°

1s—20s			
Mag.	α 36^m	x	y
	s	′	′
18.31 2	34	93.6	+ 0.7
18.19 2	36	93.9	+ 0.9
18.15 2	38	94.4	+ 0.7
16.24 7	38	94.4	+ 1.9
16.07 7	38	94.6	+ 0.6
18.27 2	39	94.6	+ 3.6
17.03 4	39	94.7	− 4.1
16.97 2	39	94.8	+ 2.7
12.84 13	40	95.1	− 3.5
16.91 4	41	95.2	+ 2.4
18.33 2	42	95.4	+ 2.6
18.27 2	42	95.4	+ 2.9
17.03 4	42	95.6	− 0.4
17.71 2	43	95.7	− 5.3
16.41 7	44	95.9	− 7.0
18.38 2	44	96.0	− 1.1
17.25 2	44	96.1	− 6.9
16.65 7	44	96.1	− 2.4
17.64 2	44	96.1	− 1.8
15.32 9	45	96.3	− 1.8

21s—40s			
Mag.	α 36^m	x	y
	s	′	′
18.11 2	46	96.4	− 4.8
18.45 2	46	96.4	+ 0.4
16.70 7	46	96.4	+ 4.8
16.76 4	46	96.6	− 8.4
14.42 10	46	96.6	+ 2.0
14.52 10	47	96.7	− 0.8
18.09 2	47	96.7	+ 3.4
17.87 2	47	96.8	+ 0.4
17.50 2	48	96.9	− 4.2
16.70 7	48	96.9	− 2.5
16.68 5	48	96.9	+ 7.4
18.17 2	48	97.1	− 2.4
8.03 7	49	97.2	− 6.6
15.60 8	50	97.4	− 7.4
18.35 2	50	97.4	+ 5.4
16.38 7	50	97.6	+ 8.0
16.59 7	53	98.2	+ 8.2
14.82 10	54	98.4	+ 7.4
17.06 4	54	98.4	+ 8.3
17.99 2	55	98.7	+ 5.8

41s—60s			
Mag.	α 36^m	x	y
	s	′	′
18.04 2	56	99.0	+ 6.4
18.50 2	56	99.1	+ 5.0
18.35 2	57	99.3	+ 7.8
18.29 2	58	99.5	+ 8.0
13.58 13	59	99.8	−11.0
17.63 2	61	0.2	−11.4
16.73 7	61	0.2	+ 5.6
16.54 7	62	0.4	+ 8.4
14.69 11	62	0.5	+ 8.8
16.42 7	64	1.0	+ 7.7
16.71 7	64	1.1	+ 8.8
18.35 2	66	1.4	+ 7.6
14.72 10	66	1.5	+ 9.5
18.48 2	67	1.7	+ 5.6
15.17 8	68	2.0	+ 8.0
18.04 2	69	2.2	+10.4
18.59 2	69	2.3	+ 5.8
18.59 2	69	2.4	+ 5.9
16.71 6	70	2.4	+ 6.0
18.41 2	71	2.8	+ 6.2

61s—80s			
Mag.	α 37^m	x	y
	s	′	′
18.43 2	11	2.8	+ 8.8
18.13 2	11	2.8	+10.7
16.30 6	13	3.3	+ 6.3
18.39 2	14	3.4	+ 8.1
15.49 9	16	4.0	−10.1
15.85 7	16	4.0	+10.6
16.44 5	20	5.1	+10.8
12.83 11	20	5.1	+11.0
12.47 10	21	5.2	+10.8
18.23 2	22	5.4	+ 8.4
16.45 7	23	5.6	+ 6.0
13.28 14	22	5.6	+10.8
16.84 7	24	5.9	+ 6.0
18.15 2	25	6.3	+10.6
18.24 2	26	6.6	+10.7
18.27 2	27	6.8	+10.4
15.01 9	28	7.0	−10.7
14.83 10	29	7.2	+ 6.6
18.48 2	31	7.7	+ 6.2
16.68 7	32	8.1	+10.0

81s—100s			
Mag.	α 37^m	x	y
	s	′	′
15.18 9	34	8.4	−11.3
18.35 2	34	8.4	+ 8.8
14.18 9	33	8.4	+ 9.8
17.90 2	35	8.6	+10.4
17.77 2	35	8.7	−11.2
18.01 2	36	8.9	+ 7.2
18.02 2	37	9.2	+ 7.6
18.17 2	38	9.6	−10.2
16.65 7	39	9.7	+ 8.0
16.92 2	42	10.4	+ 8.4
18.29 2	42	10.5	+ 8.6
14.65 9	43	10.8	+ 5.5
14.64 10	46	11.5	+ 7.1
17.05 2	47	11.7	+ 8.0
18.23 2	47	11.8	+ 7.4
15.87 6	49	12.3	+ 6.8
12.74 14	51	12.8	+ 3.2
16.49 6	52	13.0	− 6.1
17.75 2	52	13.0	+ 0.4
15.45 9	52	13.1	− 7.4

25 prec. + $76^s.8$, + 6′ 47″

21^{h} Area 113. Supplementary Stars + 0°, − 0°

101s—110s				111s—120s				121s—122s			
Mag.	α 37^{m}	x	y	Mag.	α 37^{m}	x	y	Mag.	α 38^{m}	x	y
	s	′	′		s	′	′		s	′	′
15.54 9	53	13.2	− 4.9	16.13 6	57	14.2	+ 2.8	13.66 12	3	15.8	+ 0.6
16.55 7	54	13.4	− 5.6	18.23 2	57	14.4	− 5.9	14.20 12	6	16.4	− 0.5
18.20 2	54	13.6	− 0.3	18.20 2	59	14.8	+ 1.2				
16.79 4	55	13.7	+ 6.8	17.79 2	59	14.8	+ 1.6				
18.41 2	55	13.8	− 4.6	12.71 14	61	15.2	+ 0.4				
18.33 2	55	13.8	+ 5.8	18.35 2	61	15.2	+ 1.1				
18.29 2	55	13.8	+ 6.0	14.93 10	62	15.4	+ 3.2				
18.29 2	56	14.1	− 7.4	14.91 10	62	15.6	− 4.0				
18.12 2	56	14.1	− 2.8	18.17 2	63	15.7	− 0.3				
18.23 2	57	14.2	− 1.5	16.58 7	63	15.8	− 0.9				

25 prec. + $76^{s}.8$, + 6′ 47″

22^{h} Area 114. Center for 1900: 22^{h} 37^{m} + 0° 10′ (20′ × 20′) + 0°

1—40				41—80				81—120				121—160				161—200			
Mag.	α 36^{m}	x	y+10′	Mag.	α 36^{m}	x	y+10′	Mag.	α 37^{m}	x	y+10′	Mag.	α 37^{m}	x	y+10′	Mag.	α 37^{m}	x	y+10′
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
16.76 1	37.3	94.33	22 23	16.35 9	54.0	98.50	19 14	18.47 1	6.6	1.66	8 38	15.39 9	21.6	5.39	17 51	18.24 1	37.8	9.45	5 17
17.56 3	39.4	94.84	12 39	16.59 6	54.0	98.51	9 07	18.61 1	6.9	1.73	17 15	17.66 2	21.7	5.43	7 23	15.97 9	38.9	9.73	6 28
16.32 9	39.4	94.84	12 44	15.57 9	55.4	98.85	16 25	18.16 1	7.8	1.96	21 12	18.08 2	21.8	5.45	14 29	18.19 2	39.2	9.79	5 50
16.35 9	39.4	94.86	19 29	17.88 2	55.9	98.98	22 27	18.20 2	8.2	2.06	19 51	17.95 2	22.0	5.50	12 06	16.81 8	39.5	9.88	20 39
17.41 3	39.8	94.94	18 44	18.47 1	56.0	99.01	10 10	14.62 14	8.5	2.12	19 04	17.86 1	22.6	5.65	14 45	17.97 2	40.0	9.99	7 12
17.69 2	40.8	95.19	14 42	18.54 1	56.1	99.02	14 13	16.98 6	8.6	2.15	8 48	17.16 3	24.2	6.06	21 39	14.04 15	40.4	10.10	20 30
17.57 2	40.8	95.20	14 40	16.92 3	56.3	99.07	8 58	13.16 14	8.6	2.16	11 06	17.25 3	25.6	6.40	5 20	15.18 11	40.8	10.19	14 01
18.01 2	41.1	95.27	8 43	17.39 3	56.3	99.07	23 04	13.95 15	9.2	2.29	12 53	16.74 8	25.7	6.42	18 51	17.56 2	41.1	10.28	18 59
17.63 3	41.2	95.30	17 30	17.94x 1	56.5	99.13	22 34	17.00 4	10.6	2.64	6 20	18.32 1	25.8	6.44	12 59	14.44 14	41.1	10.28	7 32
16.46 9	41.6	95.41	10 59	17.11 4	56.8	99.19	24 18	13.89 15	10.9	2.73	23 10	17.63 3	26.0	6.51	5 05	12.25w12	41.2	10.30	6 08
17.71 2	42.0	95.51	8 56	13.77 16	56.9	99.23	5 24	18.08 2	11.0	2.77	23 29	13.75 16	26.2	6.56	8 11	17.71 3	41.2	10.30	8 16
14.88 13	42.2	95.56	10 04	15.53 9	58.2	99.56	6 46	17.95 2	11.3	2.83	14 48	17.98 2	26.6	6.64	18 47	16.52 8	41.4	10.35	18 29
16.14 2	42.3	95.57	6 58	18.54 1	58.4	99.59	17 07	15.40 9	12.0	3.01	23 40	18.39 1	27.1	6.77	8 20	17.76 3	41.6	10.41	9 20
14.61 14	42.6	95.66	11 51	14.35 14	58.6	99.65	12 06	17.98 2	12.2	3.04	8 12	18.32 1	27.1	6.78	14 34	18.47 1	41.7	10.43	14 35
18.09 1	43.7	95.93	12 06	15.42 10	59.2	99.81	15 35	16.57 6	12.8	3.21	7 41	18.18 2	27.4	6.84	18 48	14.77 13	42.4	10.59	23 26
14.09 1	43.9	95.97	5 21	17.83 2	60.2	0.04	15 24	17.27 5	13.2	3.30	13 24	18.47 1	28.1	7.03	20 42	15.87 9	43.4	10.85	14 19
17.48 3	43.9	95.98	13 26	18.24 1	60.2	0.06	15 06	17.86 1	14.3	3.58	16 16	17.62 3	28.3	7.07	8 16	16.71 6	44.1	11.02	9 11
18.32 1	44.0	96.00	10 36	17.63 3	60.5	0.12	23 53	17.94 1	15.4	3.84	18 02	18.47 1	28.6	7.14	20 17	17.34 3	44.2	11.04	12 56
18.47 1	44.9	96.22	15 47	16.07 9	60.5	0.12	7 52	17.75 3	15.5	3.87	5 22	17.29 4	28.7	7.18	17 14	18.32 1	44.3	11.07	22 20
17.72 1	44.9	96.23	23 23	18.11 2	60.6	0.14	18 01	18.69 1	15.8	3.95	14 06	15.89 9	29.5	7.37	6 16	16.78 2	44.4	11.09	5 12
17.58 3	45.8	96.46	14 59	16.12 9	60.6	0.16	7 04	17.54 3	16.0	3.99	22 26	18.39x 1	29.6	7.39	21 10	17.15x 1	44.6	11.14	20 33
17.88x 2	45.9	96.47	19 15	18.54 1	60.8	0.20	16 15	17.73 2	16.2	4.06	23 38	16.91 6	29.7	7.43	11 09	15.45 9	44.7	11.17	19 32
16.94 6	45.9	96.47	18 02	15.00 13	60.8	0.21	7 53	17.61 3	16.5	4.12	15 07	18.01x 1	29.8	7.45	21 38	17.79x 1	44.7	11.18	20 44
17.36 1	47.0	96.75	24 33	17.79 1	61.2	0.31	6 06	9.64w10	16.7	4.17	14 53	17.43x 1	29.8	7.45	20 07	18.39 1	44.8	11.21	20 55
17.50 1	47.2	96.80	23 41	17.98 2	61.7	0.42	14 25	16.86 4	17.4	4.36	23 13	18.01 1	29.9	7.47	24 32	18.47 1	45.3	11.33	15 43
17.66 2	48.0	97.00	13 53	17.63 3	62.0	0.50	9 05	18.16 1	17.5	4.37	20 58	17.88 2	30.4	7.59	6 52	14.66 14	45.7	11.42	11 41
14.92 13	48.6	97.14	6 07	17.65 1	62.4	0.61	21 23	14.82 13	18.2	4.56	14 37	17.94 2	30.6	7.64	14 09	18.47 1	47.0	11.75	5 49
18.39 1	49.0	97.26	20 33	17.63 2	63.1	0.78	9 12	18.39 1	19.2	4.79	22 51	17.79 1	30.6	7.65	24 44	16.54 7	47.1	11.78	12 32
17.94 1	49.5	97.38	15 08	18.61 1	63.4	0.84	16 52	17.51 3	19.2	4.80	24 51	16.02 9	30.8	7.71	19 25	18.32x 1	47.5	11.87	22 48
15.82 9	49.9	97.47	18 23	17.08 6	63.7	0.92	10 05	17.85 2	19.4	4.84	16 39	18.30 2	30.9	7.73	14 28	13.05 14	48.2	12.05	7 47
16.92 2	49.9	97.48	24 41	18.61 1	63.8	0.95	17 18	17.86 1	19.4	4.85	22 26	17.49 2	31.0	7.76	23 17	18.39x 1	48.2	12.05	17 52
17.86 1	50.0	97.50	11 47	17.57 2	64.0	1.01	9 23	17.06 6	19.8	4.95	12 23	16.60 8	31.9	7.98	24 39	17.08 4	49.1	12.28	15 07
17.79 1	50.2	97.54	11 22	14.78 11	64.3	1.07	16 35	18.30 2	19.8	4.96	14 09	16.69 6	32.1	8.03	23 59	15.06 2	49.2	12.31	23 08
16.94 6	50.2	97.55	14 03	17.50 2	64.4	1.10	9 04	18.00 2	19.8	4.96	14 33	16.39 9	32.4	8.09	17 42	17.29 3	51.3	12.83	16 34
18.00 2	50.2	97.55	6 28	17.21 3	65.3	1.33	21 41	17.72x 1	20.4	5.09	19 19	18.47 1	33.8	8.46	11 12	17.79 1	51.5	12.87	17 42
17.01 4	50.8	97.69	22 11	17.92 2	65.8	1.45	20 12	18.54 1	20.4	5.09	18 55	17.63 2	34.7	8.67	9 42	18.24 1	51.7	12.92	6 58
17.58 2	53.2	98.29	22 15	17.80 3	65.8	1.46	12 44	17.95 2	20.9	5.23	13 36	16.73 8	35.5	8.87	19 31	15.64 2	51.9	12.97	22 56
15.36 9	53.2	98.29	16 55	17.91 3	65.8	1.46	16 22	17.85 2	21.3	5.33	21 26	16.93 6	35.8	8.94	19 18	17.07 1	52.1	13.03	5 38
18.00 2	53.3	98.32	14 32	17.52 2	66.3	1.57	6 41	16.87 4	21.4	5.36	20 51	17.71 2	36.2	9.06	13 01	18.32 1	52.2	13.05	21 04
18.39 1	53.7	98.42	9 22	17.41 3	66.4	1.61	19 56	13.15 15	21.4	5.36	8 27	16.26 9	37.1	9.27	13 24	17.07 1	52.6	13.16	6 58

25 prec. + $76^{s}.8$, + 7′ 49″

201—209				1s—10s				11s—20s				21s—22s			
Mag.	α 37^m	x	y+10′	Mag.	α 36^m	x	y+10′	Mag.	α 37^m	x	y+10′	Mag.	α 38^m	x	y+10′
	s	′	′ ″		s	′	′		s	′	′		s	′	′
17.48 2	52.9	13.22	14 03	16.33 7	32	92.9	17.3	17.58 2	18	4.5	4.3	17.57 2	1	15.3	17.6
17.70 3	53.0	13.25	16 30	17.30 2	35	93.8	19.8	17.57 2	20	5.0	4.2	16.68 4	2	15.6	14.9
17.92 2	53.2	13.31	19 39	17.08 2	61	0.2	4.6	14.98 11	23	5.8	3.6				
15.23 10	53.3	13.32	15 51	15.71 7	61	0.2	25.0	17.19 2	25	6.3	3.6				
17.58 1	54.5	13.62	8 21	16.93 2	65	1.2	25.2	17.39 2	25	6.3	4.4				
16.75 6	55.0	13.74	10 58	15.10 10	68	2.0	4.4	17.06 2	26	6.4	3.6				
18.24 1	55.4	13.85	22 39	17.57 2	69	2.2	25.7	17.39 2	29	7.2	25.6				
18.16 1	55.9	13.98	21 10	14.52 12	72	3.1	4.2	15.37 8	57	14.3	16.4				
15.23 11	56.0	14.00	18 38	13.02 14	74	3.4	3.7	16.44 7	58	14.4	16.0				
				15.62 7	75	3.8	4.0	17.64 2	59	14.8	13.3				

25 prec. + 76^s.8, + 7′ 49″

23^h

Area 115. Center for 1900: 23^h 38^m + 0° 20′ (20′ × 20′)

+ 0°

1—40				41—80				81—117				1s—12s			
Mag.	α 37^m	x	y+20′	Mag.	α 37^m	x	y+20′	Mag.	α 38^m	x	y+20′	Mag.	α 37^m	x	y+20′
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
16.50 2	28.5	92.12	27 44	12.45 13	57.9	99.47	18 16	18.63 3	19.4	4.87	20 01	17.45 2	22	90.6	20.8
18.45 3	29.1	92.28	20 33	17.79 3	58.7	99.67	20 25	17.74 3	20.4	5.10	15 07	13.20 15	23	90.8	18.8
18.33 3	31.0	92.74	24 47	18.47x 1	58.8	99.69	28 45	16.09 10	20.5	5.14	20 25	18.31 2	24	91.0	19.3
13.56 15	31.9	92.97	15 28	18.87 3	59.4	99.84	22 03	18.38 3	20.9	5.22	14 22	17.87 2	26	91.6	23.2
18.55 3	31.9	92.98	24 46	19.00 1	60.5	0.12	18 43	17.80 3	23.8	5.94	20 31	17.42 2	27	91.8	18.6
17.75 3	32.7	93.17	26 35	16.25 8	61.1	0.27	28 01	18.52 2	23.9	5.97	12 22	14.03 13	27	91.8	20.4
16.98 6	32.8	93.19	21 10	18.74 1	61.4	0.35	18 39	16.69 9	24.2	6.05	19 46	17.85 2	56	99.0	32.0
10.44h 1	34.2	93.55	11 54	18.56x 1	61.6	0.41	13 57	15.78 10	24.8	6.20	20 31	17.03 3	80	4.9	30.6
16.86 8	34.7	93.67	23 11	18.30x 1	62.6	0.65	13 04	16.49 9	25.4	6.34	14 55	16.66 7	84	6.0	31.4
18.09 3	34.9	93.72	27 07	17.76 3	63.0	0.74	10 09	18.91 1	25.4	6.36	19 17	18.23 2	86	6.5	31.2
16.09 2	35.0	93.75	10 37	16.73 8	64.6	1.14	11 56	18.74 1	26.0	6.51	28 28	15.88 7	109	12.2	24.5
17.51 3	35.1	93.77	13 55	17.93d 1	64.7	1.17	25 58	17.57 3	26.8	6.71	15 31	17.59 2	109	12.3	23.6
16.76 9	38.0	94.51	18 42	17.83 3	65.8	1.44	25 05	15.68 10	28.3	7.08	20 54				
18.19 3	38.6	94.64	15 00	14.79 14	66.0	1.50	15 08	16.44 8	28.8	7.20	11 01				
18.33 3	39.8	94.94	19 24	18.03 3	66.8	1.69	28 30	16.67 8	29.5	7.38	19 31				
17.91 3	40.0	95.00	28 43	9.66w 11	67.5	1.87	20 58	18.31 3	29.5	7.38	24 07				
18.69 3	40.4	95.09	19 30	18.47x 1	67.7	1.92	12 28	15.35 12	30.9	7.73	28 47				
16.37 9	41.2	95.31	21 09	18.47 1	68.4	2.09	28 00	11.80 15	32.0	8.01	27 56				
18.40 3	41.8	95.45	15 08	17.30 6	68.4	2.11	23 37	16.66 8	32.8	8.19	11 45				
17.64 1	42.2	95.56	11 06	16.36 10	69.2	2.29	20 19	15.43 11	33.2	8.30	27 22				
18.33 3	42.3	95.58	14 29	17.27 3	69.2	2.31	10 52	15.72 9	34.1	8.53	29 59				
14.36 12	43.8	95.96	20 44	17.97 3	69.9	2.48	17 59	15.40 12	36.0	8.99	17 03				
16.64 9	44.2	96.06	13 41	18.36 3	70.4	2.59	23 04	18.74 1	36.0	9.00	24 44				
17.44 3	44.8	96.20	16 51	17.79 3	71.4	2.84	26 40	17.64 1	36.2	9.06	11 28				
17.85 3	45.6	96.39	29 30	17.84 3	71.4	2.85	27 43	18.74 1	36.5	9.13	27 14				
15.22 12	46.1	96.52	21 14	16.41 10	71.6	2.89	19 53	17.44 3	38.6	9.65	12 28				
16.50 9	46.3	96.58	22 41	18.40 3	71.8	2.95	10 04	18.74 1	39.6	9.91	24 47				
18.65 1	46.9	96.73	12 45	18.11 3	71.9	2.98	11 46	18.43 3	40.6	10.14	19 40				
15.72 10	48.9	97.22	20 27	18.35 3	72.8	3.20	20 29	18.58 2	40.9	10.22	23 33				
10.50w 13	49.7	97.43	14 08	19.10 1	73.1	3.27	22 56	18.20 3	42.9	10.73	22 03				
18.74 1	50.4	97.60	28 03	11.64 14	73.2	3.29	23 28	15.92 9	44.8	11.20	20 46				
16.53 9	50.6	97.66	12 36	16.36 9	74.0	3.51	12 13	17.74 1	45.3	11.32	28 55				
13.73 17	51.7	97.92	24 04	18.38 3	74.5	3.62	25 46	12.86 1	45.4	11.35	12 37				
17.69 3	52.6	98.16	14 12	14.54 13	75.1	3.78	29 31	17.13 1	45.6	11.39	28 56				
18.55 3	54.2	98.54	13 44	18.92 3	75.2	3.80	21 39	13.37 13	47.2	11.81	21 30				
18.93 3	54.2	98.54	19 07	17.59 3	76.0	4.00	13 34	14.04 1	47.5	11.87	10 15				
16.67 9	55.2	98.80	11 11	17.55 3	76.6	4.15	17 28	15.15 12	47.8	11.96	25 29				
17.83 1	55.4	98.86	11 20	16.28 9	77.4	4.37	25 13								
18.12 1	56.2	99.04	26 56	13.35 16	78.0	4.51	11 48								
15.19 12	57.3	99.32	11 20	18.12d 1	79.1	4.78	28 05								

25 prec. + 76^s.8, + 8′ 19″

0$^{\mathrm{h}}$

Area 116. Center for 1900: 0$^{\mathrm{h}}$ 13$^{\mathrm{m}}$ − 14° 50′ (20′ × 20′)

− 14°, − 15°

1—20				21—40				41—60				61—75				1s—11s			
Mag.	α 12$^{\mathrm{m}}$	x	$y-50'$ $y+10'$	Mag.	α 12$^{\mathrm{m}}$	x	$y-50'$ $y+10'$	Mag.	α 13$^{\mathrm{m}}$	x	$y-50'$ $y+10'$	Mag.	α 13$^{\mathrm{m}}$	x	$y-50'$ $y+10'$	Mag.	α 12$^{\mathrm{m}}$	x	$y-50'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
14.97 1	18.6	90.00	2 47	16.55 6	40.9	95.38	59 06	19.48 1	2.5	0.59	53 19	13.37 15	25.6	6.17	54 42	14.51 11	16	89.3	51.3
14.40 12	19.0	90.11	56 07	17.07 5	41.0	95.41	57 43	18.59 3	3.5	0.86	45 15	18.02 3	27.1	6.55	55 22	17.50 2	34	93.8	43.8
18.85 1	20.6	90.48	47 54	17.22 5	42.4	95.75	49 39	19.71 2	4.8	1.16	52 50	19.09 3	28.7	6.93	51 31	17.09 4	48	97.1	44.4
18.04 3	21.0	90.57	48 21	17.24 5	46.9	96.83	53 19	15.38 11	6.0	1.46	46 01	14.90 11	29.8	7.20	59 56	15.88 8	49	97.4	44.0
17.25 5	22.2	90.88	56 50	18.07 1	47.7	97.02	4 47	15.39 11	6.4	1.56	54 42	18.51 3	31.5	7.61	58 49	17.57 2	57	99.4	43.8
18.50w 2	24	91.3	55 24	16.57 6	48.3	97.17	56 32	14.98 12	8.0	1.93	53 18	11.42h 1	32.5	7.85	3 55	17.09 4	59	99.8	42.8
18.19 3	24.4	91.39	58 55	18.07 1	48.9	97.33	4 39	11.43w14	8.6	2.08	58 49	18.04 3	32.9	7.95	57 19	16.06 6	69	2.2	41.4
18.55 3	24.4	91.41	47 12	16.02 2	49.0	97.34	4 04	19.15 3	11.3	2.72	47 28	18.90 3	34.5	8.32	56 46	11.61 14	77	4.2	41.6
18.84 2	24.9	91.53	45 03	16.32 9	50.3	97.64	59 00	19.00 3	13.7	3.30	59 39	17.99 3	35.1	8.48	53 33	12.25 14	77	4.2	41.8
18.43 3	26.3	91.84	46 31	18.24 3	51.1	97.86	46 11	18.07 1	19.5	4.71	3 41	18.55 3	35.2	8.50	56 11	16.87 2	104	10.6	53.8
18.85 1	29.7	92.68	59 03	12.76 17	52.1	98.09	55 15	17.61 1	19.7	4.75	4 47	17.67 3	36.3	8.78	48 37	17.33 2	104	10.7	53.2
14.41 13	30.9	92.98	54 42	16.65 5	54.3	98.63	0 42	17.74 3	20.5	4.96	59 44	15.19 11	37.5	9.05	52 01				
18.71 3	34.8	93.91	1 01	18.07 1	56.0	99.03	4 03	18.65 2	20.6	4.97	48 51	14.19 1	39.1	9.46	1 16				
17.00 1	35.4	94.06	4 09	15.90 2	56.1	99.06	4 47	15.24 1	21.7	5.24	4 31	18.26 1	39.5	9.54	0 02				
17.77 3	35.6	94.11	54 58	17.53 3	56.7	99.21	48 49	15.29 11	22.2	5.37	0 39	18.53 3	41.0	9.91	52 08				
16.38 8	35.8	94.14	54 32	17.10 5	57.3	99.35	48 11	18.88 3	22.4	5.41	56 33								
19.06 2	36.2	94.24	54 38	12.77 17	57.5	99.39	59 18	16.88 5	22.6	5.46	0 48								
19.16 2	36.6	94.34	54 20	19.02 2	59.1	99.77	54 51	18.69 3	22.7	5.48	53 21								
18.72 2	39.3	95.01	50 18	18.54 1	60.0	99.99	53 44	13.70 16	22.8	5.49	45 38								
15.52 11	40.8	95.36	52 20	10.28w14	60.0	**0.00**	**52 02**	18.97 2	23.4	5.65	58 08								

25 prec. + 76$^{\mathrm{s}}$.2, + 8′ 20″

1$^{\mathrm{h}}$

Area 117. Center for 1900: 1$^{\mathrm{h}}$ 12$^{\mathrm{m}}$ − 14° 40′ (20′ × 20′)

− 14°

1—30				31—60				61—90				1s—9s			
Mag.	α 11$^{\mathrm{m}}$	x	$y-40'$	Mag.	α 11$^{\mathrm{m}}$	x	$y-40'$	Mag.	α 12$^{\mathrm{m}}$	x	$y-40'$	Mag.	α 11$^{\mathrm{m}}$	x	$y-40'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
18.25 1	23.0	91.06	36 01	16.57 6	50.5	97.71	42 08	18.50 2	12.4	2.99	37 34	18.11 2	39	95.0	33.7
17.79 1	23.2	91.09	54 50	16.80 6	51.6	97.97	39 06	14.51 11	14.5	3.49	46 36	16.12 7	43	95.8	33.2
17.38 1	25.0	91.54	52 04	18.48 3	52.4	98.18	40 21	17.92 3	18.4	4.44	45 51	16.58 5	49	97.4	33.4
17.81 3	25.4	91.65	46 27	17.00 5	52.4	98.18	40 01	14.70 11	20.0	4.83	42 45	18.24 2	51	97.9	34.6
14.72 11	25.7	91.72	47 42	16.54 7	52.5	98.21	51 19	17.88d 1	20.3	4.93	46 21	16.81 5	63	0.8	33.6
15.50 1	25.8	91.72	35 47	15.45 9	52.8	98.26	39 49	16.33 8	20.6	4.97	43 53	16.10 7	64	0.9	32.0
15.73 1	26.7	91.94	35 22	14.55 11	53.6	98.44	52 16	17.15n 1	20.8	5.03	48 15	17.77 2	83	5.6	33.6
13.33w13	26.7	91.96	45 20	17.25 5	55.5	98.92	43 52	18.39 3	24.2	5.85	45 00	15.91 7	86	6.4	34.6
17.94 3	28.3	92.36	45 27	18.02 3	56.9	99.24	51 54	17.53 3	24.6	5.95	50 22	17.07 3	108	11.6	44.6
16.28 8	29.0	92.53	47 52	17.93 3	57.0	99.29	46 09	17.78 3	24.7	5.97	39 10				
13.31h 1	29.2	92.57	54 33	17.73 3	57.3	99.35	44 48	16.05 9	25.3	6.13	39 03				
17.52n 1	29.5	92.62	42 43	18.46 3	58.7	99.68	45 15	17.80 3	25.7	6.21	49 08				
15.32 9	29.5	92.63	38 58	13.80 12	59.8	99.94	42 56	18.39 3	26.3	6.35	47 59				
18.30 1	30.0	92.75	51 05	18.21x 1	60.4	0.10	37 48	18.34 3	29.7	7.18	44 32				
18.36 2	30.7	92.93	41 07	16.59 5	61.7	0.39	46 48	18.34 2	30.7	7.43	50 04				
18.12 3	33.6	93.63	49 38	16.90 6	62.3	0.55	48 25	16.82 1	31.4	7.57	52 56				
14.73 11	35.2	93.99	48 29	15.88 8	62.5	0.59	49 26	16.78 5	31.8	7.67	44 49				
16.65 7	35.4	94.06	41 16	16.37 9	63.3	0.80	39 40	16.72 1	32.1	7.76	53 23				
17.50 3	35.5	94.07	40 02	18.24 3	64.2	1.03	37 03	17.84d 1	33.2	8.05	36 01				
16.94 6	37.3	94.49	37 53	18.14 3	64.8	1.16	35 13	15.86 1	34.2	8.26	52 27				
17.60 3	37.8	94.65	41 41	14.31 12	65.1	1.23	41 59	17.44 3	34.8	8.43	44 18				
16.76 6	40.3	95.23	36 41	18.16d 1	65.2	1.24	43 40	13.53 15	35.1	8.47	51 10				
18.25 1	40.8	95.37	53 38	16.88 6	65.5	1.32	50 00	18.37 3	35.3	8.53	44 53				
18.05 3	41.2	95.44	39 13	16.94 6	65.6	1.35	41 42	18.35 1	36.1	8.72	46 29				
16.19 9	44.5	96.25	36 47	**10.21w 9**	66.0	**1.46**	**42 51**	17.82 3	37.0	8.95	48 44				
17.93 3	44.5	96.26	36 07	16.58 8	66.4	1.56	42 35	18.30 1	38.6	9.34	36 20				
13.80 11	45.6	96.52	43 38	17.97n 1	66.8	1.66	43 51	18.21 1	41.3	9.97	53 59				
18.09 3	45.7	96.55	36 47	18.59 1	68.6	2.09	44 02	13.34w13	42.3	10.23	42 58				
18.40 2	48.2	97.15	41 31	17.48d 1	70.6	2.54	45 22	17.37 3	44.5	10.75	40 33				
18.40 3	49.7	97.52	40 26	17.39 3	71.6	2.79	44 11	16.84 4	45.2	10.92	44 36				

25 prec. + 74$^{\mathrm{s}}$.0, + 7′ 57″

2$^{\mathrm{h}}$ Area 118. Center for 1900: 2$^{\mathrm{h}}$ 15$^{\mathrm{m}}$ − 14° 50′ (20′ × 20′) − 14°, − 15°

1—30				31—60				61—90				91—106				1s—7s			
Mag.	α 14^{m}	x	$y-50'$ $y+10'$	Mag.	α 15^{m}	x	$y-50'$ $y+10'$	Mag.	α 15^{m}	x	$y-50'$ $y+10'$	Mag.	α 15^{m}	x	$y-50'$ $y+10'$	Mag.	α 15^{m}	x	$y-50'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
17.22 1	39.7	95.10	46 21	17.86 2	2.0	0.47	54 07	18.24 3	25.1	6.06	55 18	17.94 3	50.1	12.11	50 57	17.74 2	13	3.0	42.2
17.35 1	39.9	95.14	4 18	17.28d 1	2.2	0.53	48 57	17.56 2	25.8	6.22	48 51	16.75 5	50.7	12.24	51 58	17.80 2	15	3.6	43.0
17.66 2	40.1	95.21	57 47	15.96 8	3.7	0.91	50 30	17.83 1	26.7	6.46	50 41	17.86 3	51.6	12.46	58 42	12.96 14	16	4.0	41.4
16.13 7	40.5	95.29	56 36	13.76 13	6.4	1.54	50 55	18.10 1	28.5	6.88	54 53	17.42 1	52.0	12.56	51 30	17.54 2	26	6.4	41.8
17.28 1	41.5	95.51	4 16	17.69 2	6.9	1.68	3 17	18.03 1	29.6	7.16	55 21	17.90 1	52.4	12.65	57 20	16.93 2	27	6.6	43.6
16.07 8	41.7	95.58	51 22	17.55 3	7.0	1.70	47 44	17.83 3	30.6	7.41	50 19	17.22 1	52.8	12.75	4 39	13.97 12	63	15.3	48.6
15.73 10	42.1	95.68	54 12	16.51 6	9.6	2.32	2 04	16.21 7	31.3	7.55	53 59	17.80 3	54.2	13.09	54 33	17.60 2	65	15.8	52.0
16.47 6	42.8	95.86	53 02	17.83 3	10.2	2.46	56 33	17.62 1	31.7	7.66	50 45	17.69 1	54.8	13.25	3 00				
17.45 2	43.9	96.09	49 36	14.52 11	10.6	2.54	53 15	16.27 7	33.4	8.08	53 40	17.83 1	55.4	13.37	59 32				
17.48 2	44.2	96.18	48 01	16.95 4	10.6	2.56	57 23	17.78 3	35.1	8.48	53 31	17.08 1	56.1	13.56	3 00				
17.35 1	44.4	96.23	56 01	17.99 2	12.6	3.06	48 43	17.74 3	36.2	8.74	49 29	16.86 4	56.2	13.58	52 53				
14.88 1	44.6	96.27	3 45	17.93 3	12.6	3.06	46 01	15.77 10	36.8	8.87	55 49	11.87w 15	56.5	13.64	50 50				
17.42 2	45.2	96.43	47 06	17.71 3	12.8	3.09	1 01	17.69 1	38.7	9.36	56 40	17.49 1	57.4	13.87	0 28				
15.32 1	46.1	96.64	1 17	17.78 2	13.0	3.16	58 25	17.76 1	38.9	9.40	49 44	17.69 1	58.2	14.04	51 15				
17.60 3	46.5	96.75	47 30	15.92 10	13.1	3.18	46 55	15.99 9	40.2	9.69	54 54	17.66 2	58.2	14.06	46 39				
15.11 11	47.7	97.03	57 55	17.75 3	13.4	3.24	51 02	17.65 3	40.3	9.72	52 05	17.69 1	61.1	14.76	1 14				
17.90 1	49.3	97.42	54 46	13.00w 15	13.8	3.32	47 01	17.56 3	40.7	9.81	0 25								
17.62 1	50.2	97.62	52 09	17.71 3	14.9	3.60	53 38	17.28 3	41.0	9.90	1 55								
15.74 10	50.4	97.68	56 48	17.51 3	16.8	4.06	57 50	18.03 1	41.0	9.91	54 32								
17.90 1	51.7	98.02	54 43	15.40 8	17.0	4.11	49 35	17.01 1	41.3	9.98	4 56								
17.49 1	52.1	98.11	54 04	16.74 6	17.3	4.17	52 04	16.44 6	42.3	10.23	0 35								
17.94 3	52.8	98.27	55 55	16.74d 1	18.4	4.46	59 29	14.86 10	42.4	10.25	51 48								
17.90? 1	53.3	98.37	48 21	18.06 2	19.4	4.68	56 16	15.67 7	43.3	10.45	0 02								
17.22n 1	53.4	98.41	51 25	16.88 4	19.7	4.76	1 24	12.13h 1	43.5	10.51	3 03								
17.28 1	54.4	98.64	0 43	8.96w 6	20.3	4.89	52 35	11.93h 1	44.5	10.75	3 53								
14.54 11	55.2	98.84	52 01	17.88 3	22.7	5.48	46 59	17.76 1	47.8	11.55	3 34								
10.56w 11	58.9	99.73	47 52	15.45 10	23.5	5.68	3 57	17.83 1	48.8	11.78	45 48								
17.46 3	59.2	99.81	49 23	16.86 4	23.6	5.71	59 18	17.82 2	49.1	11.86	53 55								
17.64 2	59.7	99.92	48 13	18.17 1	23.8	5.76	53 39	17.01 1	49.5	11.95	3 15								
17.08 1	60.0	0.00	3 05	18.17 1	24.4	5.90	50 26	17.01 3	49.6	11.98	57 39								

25 prec. + 71$^{\mathrm{s}}$.7, + 6′ 56″

3$^{\mathrm{h}}$ Area 119. Center for 1900: 3$^{\mathrm{h}}$ 10$^{\mathrm{m}}$ − 14° 50′ (20′ × 20′) − 14°

1—20				21—40				41—60				61—80				1s—9s			
Mag.	α 9^{m}	x	$y-50'$	Mag.	α 9^{m}	x	$y-50'$	Mag.	α 10^{m}	x	$y-50'$	Mag.	α 10^{m}	x	$y-50'$	Mag.	α 9^{m}	x	$y-50'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
17.16 3	27.8	92.22	46 57	13.99 12	45.6	96.53	55 48	16.14 9	9.2	2.23	58 56	17.43 3	25.6	6.17	40 07	16.10 7	21	90.6	48.4
17.08 3	28.7	92.44	49 58	13.30 16	47.6	96.99	55 56	18.52 2	9.8	2.38	45 30	17.56 3	27.0	6.52	47 25	15.23 8	25	91.4	47.7
17.38 1	29.8	92.69	40 00	17.15 3	48.4	97.20	44 56	17.45 3	10.9	2.62	46 18	17.80 3	27.9	6.75	44 55	17.94 2	26	91.8	45.1
16.91 1	29.8	92.69	58 59	17.97 3	48.6	97.24	49 19	16.82 5	11.3	2.73	45 15	16.74 5	28.8	6.95	48 26	16.73 3	26	91.9	45.6
15.66 2	32.3	93.29	40 12	16.01 10	50.1	97.59	54 14	16.69 5	12.0	2.89	54 02	11.48w 14	29.6	7.15	50 25	16.72 3	65	1.3	39.6
13.00 14	33.3	93.53	53 33	16.14 9	50.1	97.60	58 34	15.58 10	12.6	3.04	56 47	14.79 11	32.9	7.94	52 20	17.53 2	67	1.6	38.9
18.08 3	36.4	94.31	40 52	17.97 3	50.2	97.62	41 55	15.36 10	12.9	3.12	59 01	15.83 10	34.6	8.35	44 04	18.26 2	74	3.5	39.9
13.61 14	37.5	94.58	53 56	17.79 3	54.6	98.70	43 32	15.24 9	12.9	3.12	51 48	18.43 1	35.1	8.47	46 16	16.41 5	77	4.2	39.0
13.51 16	37.7	94.62	41 48	13.93 12	54.8	98.74	58 07	17.99 1	13.2	3.19	53 52	18.36 3	35.1	8.48	46 27	18.40 2	82	5.3	39.3
13.98 12	38.5	94.80	40 26	15.50 10	55.5	98.93	54 46	17.72 3	15.0	3.63	42 54	17.38 3	36.8	8.89	57 04				
18.49 3	39.3	95.01	52 45	17.34 3	59.2	99.81	46 47	17.05 3	15.0	3.63	50 31	17.44 1	38.4	9.27	59 56				
15.66 10	40.1	95.19	53 32	16.99 3	60.5	0.13	43 52	17.58 3	15.2	3.67	55 44	18.35 1	39.3	9.49	44 01				
14.58 11	41.0	95.39	52 41	17.61 3	60.9	0.22	50 19	17.78d 1	16.6	4.01	54 59	16.54 6	39.9	9.64	49 32				
15.80 10	42.8	95.86	50 44	18.16 3	61.3	0.33	57 26	14.99 11	17.9	4.33	51 45	16.20 9	40.5	9.77	42 23				
16.16 8	43.6	96.04	57 03	17.12 3	62.2	0.52	56 34	13.28 16	20.0	4.83	46 04	13.80 13	41.9	10.12	55 18				
14.86 11	44.1	96.15	54 12	17.12 3	62.2	0.53	48 58	16.62 7	20.2	4.88	43 59	17.04d 1	43.6	10.53	43 56				
17.80 3	44.4	96.22	49 35	14.01 13	62.9	0.69	52 05	15.93 10	20.3	4.91	44 08	14.96 11	44.8	10.82	46 46				
17.81 3	44.5	96.26	42 14	9.13w 7	68.2	1.97	48 52	17.38 3	23.3	5.62	45 19	13.86 14	44.9	10.85	53 57				
17.56 3	44.7	96.29	54 55	13.19 15	68.2	1.97	48 27	16.75 3	23.7	5.72	55 47	18.28 3	45.8	11.07	51 17				
14.49 12	45.3	96.46	54 17	16.51 8	68.9	2.16	54 51	13.79 14	24.6	5.94	52 39	16.63 1	47.8	11.55	55 59				

25 prec. + 70$^{\mathrm{s}}$.2, + 5′ 38″

4^{h} Area 120. Center for 1900: 4^{h} 12^{m} − 15° 10′ (20′ × 20′) − 14°, − 15°

1—40				41—80				81—120				121—160				161—171			
Mag.	α 11^{m}	x	$\frac{y-70'}{y-10'}$	Mag.	α 11^{m}	x	$\frac{y-70'}{y-10'}$	Mag.	α 12^{m}	x	$\frac{y-70'}{y-10'}$	Mag.	α 12^{m}	x	$\frac{y-70'}{y-10'}$	Mag.	α 12^{m}	x	$\frac{y-70'}{y-10'}$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.46 3	27.2	92.08	2 25	18.31 1	45.3	96.45	13 46	18.37 1	7.5	1.78	9 41	17.24 3	26.0	6.28	6 18	16.16 9	44.9	10.84	59 33
15.75 2	27.9	92.26	0 59	16.64 3	45.3	96.46	14 38	14.82 12	7.6	1.82	55 26	17.94 2	26.6	6.43	3 53	14.95 12	46.0	11.09	7 26
17.52 1	28.6	92.43	1 33	17.40 3	45.5	96.50	6 35	13.17 16	9.8	2.38	4 45	16.60 9	27.5	6.65	2 28	18.04 2	46.2	11.16	9 36
17.68 2	28.6	92.43	7 20	18.18 1	47.4	96.96	11 25	10.22w 8	10.4	2.49	6 24	16.50 9	27.8	6.72	2 00	15.89 10	47.0	11.35	2 08
17.39 1	28.7	92.44	59 31	16.54 9	47.8	97.06	4 32	15.26 10	10.9	2.62	56 37	17.04 1	28.0	6.77	55 46	17.73 1	47.0	11.36	55 15
9.00w 7	28.7	92.45	10 39	15.71 10	48.7	97.29	10 24	17.24 3	11.2	2.71	57 33	15.03 12	28.4	6.84	13 52	16.93 3	47.8	11.54	8 58
17.58 3	29.0	92.52	6 33	17.33 3	49.3	97.40	9 50	18.15 2	11.4	2.75	7 32	17.39d 1	28.4	6.84	5 45	16.83 3	47.8	11.54	1 47
17.04 1	30.0	92.76	57 37	17.98 2	50.4	97.67	9 30	17.64 3	12.8	3.09	12 09	17.18 3	28.5	6.88	3 16	16.50 7	47.8	11.56	4 11
17.98 1	30.1	92.77	14 24	18.25 1	51.1	97.85	3 41	16.53 9	12.8	3.09	1 28	17.61 3	29.1	7.02	12 06	18.03 2	48.5	11.72	10 10
18.04 1	30.2	92.80	10 04	17.60 2	51.3	97.89	57 15	18.48 2	12.8	3.11	7 33	18.24 2	29.4	7.10	7 29	17.12 1	49.3	11.90	14 23
15.95 10	30.2	92.82	10 16	17.66 1	51.5	97.95	55 12	12.84 16	13.1	3.18	59 15	16.89 3	29.7	7.17	5 58	15.80 1	49.3	11.90	57 21
17.54 3	30.4	92.86	5 21	17.75 3	51.8	98.02	7 36	13.40 17	15.7	3.81	3 40	18.02 2	30.1	7.28	1 34				
16.66 1	31.3	93.07	14 49	18.31 1	51.9	98.05	14 39	16.97 3	15.9	3.84	7 46	17.98 2	31.2	7.51	9 48				
16.78 5	31.7	93.17	5 33	18.25 1	52.2	98.12	57 03	18.51 1	16.4	3.97	2 46	18.03 2	31.6	7.63	57 16				
13.77 1	32.1	93.27	55 53	17.75 2	52.9	98.28	56 49	17.51 3	16.7	4.02	7 36	18.19 2	32.7	7.90	8 02				
18.31 1	32.3	93.30	2 35	17.98 1	53.9	98.53	4 39	17.61 3	16.9	4.08	10 02	18.37 1	33.2	8.02	9 01				
16.30 9	32.9	93.46	0 32	18.31 1	54.4	98.64	56 57	18.11 1	17.6	4.25	11 46	14.36 14	33.3	8.05	14 41				
17.77 2	33.4	93.58	12 43	15.40 10	54.6	98.71	59 53	16.37 9	17.8	4.30	0 25	15.41 10	33.8	8.18	58 33				
17.30 3	33.8	93.67	3 20	11.93 16	54.8	98.76	55 54	18.11 1	18.4	4.45	11 40	17.78 2	34.3	8.28	57 32				
17.52 1	36.1	94.22	57 38	16.54 9	55.1	98.82	4 35	17.38 3	18.8	4.55	55 58	15.67 10	34.6	8.35	7 52				
17.78 2	36.1	94.22	7 10	16.85 3	55.4	98.90	6 39	16.61 9	19.8	4.77	6 43	17.85 2	35.0	8.44	5 11				
17.04 3	36.1	94.22	12 23	18.25 1	55.8	98.98	56 51	18.30 2	19.9	4.79	2 49	17.16 3	35.6	8.61	5 32				
16.20 9	36.8	94.39	59 49	18.11 1	55.9	99.01	3 27	17.78 2	20.1	4.86	8 27	18.25 1	36.8	8.90	13 59				
17.59 1	37.0	94.44	56 17	17.17 3	56.1	99.04	1 13	17.76 2	20.4	4.92	13 07	18.15 2	37.1	8.97	3 10				
16.59d 1	37.6	94.59	3 24	16.76 3	57.4	99.36	0 13	17.41 3	20.7	4.99	56 20	18.18 1	37.3	9.00	55 26				
16.52 1	37.7	94.62	58 06	15.02 12	58.2	99.57	57 18	16.38 10	20.8	5.02	8 59	18.31 1	38.4	9.28	2 46				
18.25 1	37.9	94.66	13 54	17.63 3	58.8	99.72	10 01	17.82 2	21.0	5.08	58 04	17.57 3	38.8	9.37	7 56				
16.50 8	38.2	94.73	3 42	17.40 3	59.3	99.82	56 05	18.43 1	21.4	5.17	5 07	16.80 3	40.4	9.74	59 40				
17.70 2	39.1	94.94	13 20	18.57? 1	60.0	0.00	4 49	17.17 3	22.7	5.47	8 47	16.60 3	40.5	9.77	2 15				
11.34w 14	40.1	95.19	6 57	18.43 1	61.0	0.24	11 32	16.68 5	22.8	5.49	58 37	16.43 9	40.6	9.81	3 51				
16.49 9	40.1	95.20	11 27	18.30 2	61.2	0.30	10 29	14.59 12	22.8	5.51	59 24	16.26 10	40.8	9.85	9 58				
17.75 2	41.3	95.48	58 53	18.43 1	61.8	0.43	10 39	17.98 2	22.9	5.52	3 00	18.31 1	40.8	9.86	1 56				
17.37 3	42.1	95.68	58 28	16.85 3	62.1	0.50	13 10	14.18 14	24.0	5.81	1 43	14.89 12	41.2	9.96	8 02				
16.58 5	42.1	95.69	59 39	18.51 1	62.3	0.55	8 12	17.79 1	24.1	5.82	57 17	17.59 1	41.6	10.04	57 51				
16.33 1	42.4	95.75	55 38	16.98 3	62.4	0.58	7 24	16.97 3	24.4	5.90	7 49	17.12 1	42.0	10.16	56 52				
16.33 9	42.4	95.75	11 36	17.50 3	62.4	0.58	55 57	18.51 1	24.5	5.93	5 59	17.92 1	42.2	10.24	55 47				
15.85 10	43.9	96.11	59 20	14.52 12	62.6	0.62	5 44	15.15 11	24.8	6.00	3 23	16.51 5	42.4	10.26	14 39				
17.60 3	44.1	96.16	8 10	16.45 9	63.9	0.96	12 19	18.31 1	24.8	6.00	14 01	13.57 15	44.2	10.67	4 27				
14.46 13	44.7	96.29	1 48	16.65 7	64.7	1.12	11 26	15.90 10	25.7	6.20	57 16	16.54 8	44.5	10.74	2 15				
17.79d 1	45.2	96.43	14 42	16.82 3	64.8	1.16	12 14	17.60 3	25.7	6.20	0 39	17.56 3	44.5	10.76	8 45				

25 prec. + 68^{s}.7, + 3′ 47″

4^{h} Area 120. Supplementary Stars − 15°

1s—10s				11s—15s			
Mag.	α 11^{m}	x	$y-10'$	Mag.	α 12^{m}	x	$y-10'$
	s	′	′		s	′	′
12.28 15	23	91.1	5.4	16.63 2	34	8.1	15.4
14.34 12	26	91.8	6.1	13.48 15	54	13.0	9.3
16.63 2	48	97.2	15.6	17.42 2	54	13.2	4.0
16.88 2	50	97.6	16.2	16.48 6	55	13.2	8.1
16.92 2	54	98.6	16.8	17.01 2	55	13.3	9.7
16.30 7	61	0.3	15.5				
17.28 2	68	1.8	17.4				
17.44 2	70	2.4	16.2				
14.21 12	71	2.6	16.4				
17.00 2	90	7.3	15.7				

25 prec. + 68^{s}.7, + 3′ 47″

Area 121. Center for 1900: $5^h\ 15^m$ − 14° 50′ (15′ × 15′)

1—30

Mag.	α 14^{m}	x	y − 50′
	s	′	′ ″
18.24 2	22.7	91.00	53 21
14.63 12	23.2	91.10	50 02
17.42 3	23.4	91.14	52 37
17.42 3	23.4	91.14	53 24
15.66 9	24.6	91.45	57 02
16.88 3	24.8	91.49	49 34
16.97 3	24.8	91.49	55 04
n	25.0	91.54	50 05
14.59 11	25.4	91.64	57 46
17.86 2	25.5	91.67	57 02
17.73 2	26.7	91.95	57 37
17.43 3	27.5	92.16	51 20
17.92 2	27.8	92.23	48 00
15.84 9	28.2	92.32	52 15
13.14 13	28.3	92.34	51 05
13.50 13	29.2	92.56	59 56
18.17 2	30.0	92.75	55 48
18.16 2	30.4	92.84	53 57
18.22 2	30.5	92.87	55 18
18.64 2	30.6	92.90	57 47
17.33 3	30.8	92.94	46 37
18.09d 1	30.9	92.97	54 32
18.62 1	30.9	92.98	53 35
18.39 2	31.0	93.00	56 55
18.26 2	31.0	93.00	58 10
18.64 2	31.6	93.15	49 12
18.56 1	33.6	93.62	50 19
16.95 3	34.1	93.76	55 04
18.27 2	34.2	93.77	57 20
17.44 3	34.3	93.81	58 16

31—60

Mag.	α 14^{m}	x	y − 50′
	s	′	′ ″
17.99 2	35.3	94.02	46 27
14.70 12	35.4	94.05	51 48
18.06 2	35.4	94.06	55 33
18.16 2	35.5	94.08	55 34
18.22 2	36.4	94.30	55 00
17.87 3	36.6	94.34	52 36
16.55 7	36.6	94.36	57 09
18.26 2	37.9	94.66	50 25
18.06 2	37.9	94.67	56 12
16.85 3	38.7	94.85	49 15
15.81 8	38.7	94.85	52 48
16.23 8	38.7	94.86	50 43
18.62 1	38.7	94.86	49 00
18.09 2	39.9	95.16	56 36
16.49 3	40.2	95.22	47 39
16.70 5	40.2	95.23	53 00
16.29 8	41.3	95.47	50 25
17.92 2	42.1	95.68	58 41
17.59 3	42.8	95.85	48 44
16.22 8	43.3	95.98	49 51
18.69 1	43.6	96.05	54 22
18.27 2	44.7	96.29	58 07
18.69 1	45.1	96.41	56 04
17.75 3	45.3	96.46	57 33
18.16 2	45.4	96.47	58 18
17.40 3	45.4	96.47	50 46
16.79 3	46.1	96.65	49 06
18.32 2	46.5	96.74	47 56
17.43 3	46.8	96.79	45 39
15.08 9	47.0	96.84	56 04

61—90

Mag.	α 14^{m}	x	y − 50′
	s	′	′ ″
14.94 10	47.3	96.93	52 59
17.22 3	47.4	96.95	50 16
16.98 3	47.6	97.00	56 11
16.95 3	48.2	97.15	57 47
13.34 16	48.4	97.19	49 35
17.60 3	48.8	97.29	48 36
18.28 2	48.9	97.33	52 29
18.22 2	50.2	97.62	53 22
16.88 3	50.7	97.75	59 15
14.34 12	51.2	97.88	53 37
17.59 3	51.7	98.00	59 27
15.89 8	52.3	98.14	58 44
13.86 14	52.3	98.14	50 02
18.02d 1	52.3	98.15	45 52
18.17 2	52.8	98.26	59 16
8.41w 6	53.2	98.36	52 19
18.49 1	54.8	98.74	58 20
17.75 1	54.9	98.77	53 05
17.74 3	55.4	98.90	48 27
17.81 2	56.0	99.02	49 50
15.32 9	56.5	99.15	51 33
18.62 1	56.9	99.25	54 37
15.49 10	56.9	99.25	58 54
17.33 3	58.1	99.54	49 03
14.52 11	58.3	99.60	54 26
17.47 3	58.5	99.65	59 58
17.29 3	59.4	99.85	50 10
17.47 3	59.4	99.85	45 51
17.04 3	59.8	99.96	45 43
17.80 3	60.1	0.02	55 14

91—120

Mag.	α 15^{m}	x	y − 50′
	s	′	′ ″
18.08 2	0.3	0.07	48 16
14.67 12	0.6	0.14	59 40
16.13 8	0.6	0.15	53 53
17.59 2	1.0	0.26	49 36
14.68 11	1.2	0.29	49 14
16.20 8	1.2	0.30	52 30
10.39w 9	1.2	0.30	59 38
18.22 2	1.8	0.43	58 22
17.58 3	1.9	0.44	54 35
15.72 9	1.9	0.44	48 48
14.59 11	1.9	0.44	48 41
17.18 3	2.5	0.61	53 19
17.66 3	2.8	0.67	50 02
18.69 1	3.3	0.79	51 07
18.27 2	3.6	0.87	51 17
17.26 3	5.2	1.24	50 08
16.66 7	5.6	1.36	50 30
17.72 3	5.8	1.41	48 51
17.78 2	6.1	1.48	58 49
18.43 2	6.8	1.64	58 10
18.64 2	6.8	1.66	54 31
16.27 8	6.9	1.68	56 24
16.31 8	8.5	2.04	56 37
17.08 3	8.5	2.06	45 52
18.56 1	8.5	2.06	48 42
18.38 2	9.3	2.25	50 21
16.27 8	9.5	2.30	55 18
13.48 15	9.8	2.37	46 38
17.17 3	10.0	2.43	59 30
17.48 3	10.2	2.47	50 20

121—146

Mag.	α 15^{m}	x	y − 50′
	s	′	′ ″
15.77 9	10.6	2.54	49 09
16.32 8	11.0	2.66	50 43
16.41 7	11.6	2.80	55 34
18.47 2	12.1	2.93	56 05
18.46 2	12.6	3.04	58 51
18.02 2	13.6	3.28	48 25
18.37 2	14.2	3.42	57 21
16.31 7	14.6	3.53	54 39
17.53 3	14.7	3.55	49 05
17.73 2	15.5	3.76	46 00
17.68 3	15.9	3.84	51 02
17.49 3	15.9	3.85	59 41
17.58 2	16.6	4.01	51 03
13.97 14	17.8	4.30	58 43
15.60 10	18.0	4.34	48 03
18.58 2	19.0	4.59	55 16
16.02 9	19.0	4.60	54 42
14.67 12	20.4	4.92	46 58
15.40 10	21.3	5.14	59 34
17.28 2	21.7	5.25	47 50
18.40 2	22.0	5.33	45 28
16.35 5	22.2	5.36	46 09
18.20 2	23.0	5.56	47 42
17.41 3	23.2	5.60	51 57
14.42 11	23.2	5.61	54 26
16.29 8	23.8	5.74	52 54

25 prec. + 68$^{\mathrm{s}}$.0, + 1′ 38″

Area 121. Supplementary Stars

1s—20s

Mag.	α 14^{m}	x	y − 50′ / y + 10′
	s	′	′
14.70 10	10	87.9	50.0
14.99 10	12	88.4	50.4
15.74 7	13	88.6	48.4
17.34 2	13	88.6	54.6
16.10 6	13	88.6	57.0
16.22 6	14	89.0	51.8
16.32 6	17	89.5	52.5
15.06 9	18	90.0	57.8
16.33 6	19	90.1	52.2
14.62 10	20	90.4	53.2
16.80 2	21	90.6	58.6
15.30 8	29	92.4	44.8
15.43 8	28	92.4	1.4
15.89 6	30	92.8	0.6
16.64 2	34	93.8	43.7
16.04 6	35	94.0	44.6
17.26 2	38	94.6	1.2
14.93 9	38	94.8	1.4
13.48 12	42	95.7	2.6
15.95 6	43	95.8	42.2

21s—40s

Mag.	α 14^{m}	x	y − 50′ / y + 10′
	s	′	′
17.30 2	43	95.9	42.4
16.94 2	44	96.2	1.7
15.93 6	46	96.6	43.0
17.58 2	49	97.3	44.6
16.17 6	50	97.6	0.9
16.19 6	55	98.7	45.0
17.26 2	55	98.8	2.2
15.87 7	56	99.0	41.7
16.30 6	56	99.1	42.0
13.98 11	56	99.1	43.4
16.16 6	58	99.5	41.8
17.08 2	61	0.3	44.6
17.39 2	62	0.6	42.0
17.22 2	64	1.0	0.4
16.31 6	66	1.4	44.0
15.58 8	68	2.0	0.8
16.83 2	69	2.2	2.4
17.14 2	73	3.1	43.5
16.29 6	73	3.2	44.6
13.81 10	75	3.6	0.4

41s—55s

Mag.	α 15^{m}	x	y − 50′ / y + 10′
	s	′	′
14.08 11	17	4.0	1.6
15.16 6	18	4.4	0.6
15.67 7	25	6.0	57.0
17.49 2	26	6.2	52.9
16.25 6	26	6.4	51.6
15.25 8	27	6.6	46.2
16.86 2	27	6.6	48.6
14.80 9	27	6.6	57.8
16.30 6	31	7.6	54.6
16.22 6	32	7.8	48.0
15.78 6	32	7.8	48.8
13.60 10	34	8.2	51.4
15.31 8	34	8.2	51.9
15.39 8	34	8.2	53.2
15.36 8	36	8.8	52.7

25 prec. + 68$^{\mathrm{s}}$.0, + 1′ 38″

Area 122. Center for 1900: 6^{h} 12^{m} − 15° 10′ (15′ × 15′)

1—60				
Mag.		α 11^{m}	x	$y-10'$
		s	′	′ ″
15.56	9	48.0	97.09	10 14
18.01	1	48.0	97.10	8 31
17.15	1	48.0	97.11	14 43
18.01	1	48.1	97.12	2 22
17.51	1	48.2	97.16	13 22
17.16	3	48.3	97.17	2 50
17.84	3	48.4	97.19	11 03
16.02	9	48.6	97.24	10 23
16.23	9	48.8	97.29	1 08
15.30	9	48.9	97.32	1 38
13.31	16	49.0	97.35	3 01
18.06	1	49.1	97.38	3 51
17.95	3	49.2	97.39	1 54
15.80	9	49.3	97.43	7 59
16.92	3	49.6	97.49	1 07
17.34	3	50.1	97.59	3 55
17.84	2	50.1	97.61	4 15
15.66	2	50.4	97.67	14 00
16.69	5	50.6	97.72	6 23
18.01	1	50.6	97.73	10 39
17.66	1	50.7	97.74	5 11
13.10	14	50.9	97.79	0 21
18.01	1	51.1	97.84	0 56
17.51	1	51.1	97.85	6 57
14.94	10	51.4	97.92	4 08
17.51	1	51.7	97.99	14 24
17.10	3	51.9	98.05	6 48
17.35	3	51.9	98.06	8 07
17.76	3	51.9	98.06	0 12
17.89	3	52.1	98.09	9 40
16.39	9	52.2	98.13	2 20
18.03	3	52.4	98.17	0 59
18.06	1	52.4	98.18	8 29
16.11	9	52.6	98.22	4 37
17.57	3	52.8	98.26	1 33
17.36d	1	53.0	98.31	9 13
17.81	3	53.3	98.37	0 41
18.01	1	53.3	98.37	10 20
17.88	2	53.5	98.42	8 25
18.06	1	53.6	98.44	2 25
16.35	4	53.7	98.48	12 00
16.55	5	54.0	98.56	12 58
17.96	3	54.0	98.56	3 03
17.97	1	54.4	98.66	11 41
10.31w	8	54.7	98.73	0 07
18.06	1	55.1	98.83	3 52
17.51	3	55.2	98.84	5 46
17.88	2	55.3	98.87	9 12
18.06	1	55.4	98.90	5 18
15.65	9	55.4	98.90	13 55
15.56	7	55.4	98.91	12 05
17.89d	1	55.5	98.92	5 38
14.43	12	55.6	98.94	9 50
17.00	3	55.9	98.99	12 48
14.61	11	55.9	99.00	7 40
17.93	2	56.1	99.06	1 43
17.32	3	57.0	99.27	12 29
15.79	9	57.2	99.32	3 42
14.87	12	57.2	99.33	4 20
16.28	9	57.2	99.33	11 01

61—120				
Mag.		α 11^{m}	x	$y-10'$
		s	′	′ ″
17.41	1	57.2	99.33	12 04
17.99	3	57.3	99.36	3 06
17.97	1	57.5	99.39	13 01
13.59	14	57.5	99.40	13 37
17.54	3	57.8	99.48	2 06
16.24	9	57.9	99.49	13 14
16.40	9	57.9	99.50	7 47
16.53	8	58.0	99.52	0 34
17.00	3	58.4	99.63	5 52
17.70	2	58.8	99.69	6 16
15.69	9	59.0	99.74	2 57
16.52	7	59.0	99.76	11 34
17.69	3	59.2	99.79	7 35
16.37	8	59.2	99.79	12 22
15.86	9	59.9	99.97	3 32
17.62	3	60.0	0.01	2 29
17.40	3	60.1	0.02	9 23
17.76	2	60.2	0.04	2 17
16.72	5	60.2	0.06	8 44
15.33	10	60.4	0.09	0 46
17.86	3	60.4	0.11	11 11
17.93	1	60.8	0.20	0 58
17.37	3	60.9	0.23	10 04
17.98	2	61.2	0.29	2 07
17.88	2	61.2	0.29	4 30
17.60	3	61.3	0.32	9 12
14.92	11	61.3	0.32	5 37
18.03	3	61.4	0.33	1 06
14.53	12	61 6	0.38	3 23
17.78	2	61.7	0.41	4 38
15.92	9	61.9	0.46	11 48
18.10	1	62.1	0.50	6 18
18.01	1	62.5	0.61	8 30
17.42	3	62.7	0.64	3 47
18.10	1	62.7	0.66	6 06
17.78	2	62.7	0.66	11 12
16.40	9	62.8	0.67	2 05
13.95	14	62.9	0.71	0 53
16.76	5	63.0	0.72	10 14
17.87	3	63.1	0.76	9 26
16.88	5	63.1	0.76	7 24
18.10	1	63.1	0.76	3 09
16.92	3	63.2	0.78	2 30
17.75	1	63.3	0.80	9 12
17.07	3	63.4	0.83	2 19
17.93	3	63.8	0.92	11 33
17.76	3	63.8	0.92	9 34
18.15	1	64.0	0.98	5 04
16.46	9	64.4	1.05	4 16
17.71	2	64.7	1.12	11 42
14.59	13	64.7	1.13	1 15
18.06	1	64.9	1.17	9 32
17.78	2	65.1	1.22	9 12
16.71	7	65.5	1.32	1 33
17.31	3	65.5	1.32	13 02
17.98	2	65.6	1.34	1 43
17.81	3	65.6	1.36	7 38
15.32	8	65.9	1.42	5 17
17.86	2	66.0	1.45	4 20
14.96	12	66.2	1.49	1 03

121—180				
Mag.		α 12^{m}	x	$y-10'$
		s	′	′ ″
17.77	3	6.7	1.63	5 30
16.11	9	6.9	1.68	7 41
18.10	1	7.2	1.75	1 48
17.35	3	8.2	1.98	12 33
17.98	2	8.3	1.99	9 21
18.15	1	8.3	2.00	5 12
17.89	1	8.5	2.04	10 19
18.15	1	9.0	2.17	7 49
16.02	9	9.1	2.19	13 40
16.38	9	9.2	2.23	3 27
17.86	3	9.4	2.28	6 10
14.19	14	9.5	2.31	11 45
17.77	3	9.8	2.38	9 18
16.49	8	10.1	2.44	2 15
18.10	1	10.2	2.46	7 03
17.44	3	10.5	2.53	13 08
17.63	3	10.5	2.53	2 20
15.03	12	10.6	2.56	6 26
18.01	1	10.7	2.57	11 12
16.57	5	10.8	2.59	13 05
15.96	9	10.8	2.60	10 50
17.91	2	10.9	2.63	1 14
17.45	3	11.0	2.65	11 35
15.76	9	11.2	2.69	0 48
17.89	3	11.6	2.79	12 25
16.35	9	11.6	2.79	5 36
15.93	9	11.6	2.80	3 29
17.76	3	11.6	2.81	2 15
16.79	5	11.7	2.83	13 49
17.90	3	11.8	2.85	5 24
14.64	12	12.0	2.90	10 58
16.37	8	12.0	2.91	13 30
18.00	2	12.0	2.91	15 00
17.35	3	12.1	2.92	0 17
15.32	9	12.4	2.99	8 44
17.39	3	12.5	3.02	8 58
18.06	1	12.5	3.03	6 58
18.10	1	12.5	3.03	0 17
18.17	3	12.7	3.08	5 41
11.38w	12	12.7	3.08	12 06
17.22w	2	13	3.1	13 12
17.54	3	12.8	3.11	4 12
16.89	3	13.0	3.16	6 28
17.93	1	13.8	3.32	3 29
17.61d	1	13.9	3.34	4 40
16.88	7	13.9	3.34	4 28
17.79	3	13.9	3.35	14 43
18.14	2	14.3	3.44	3 29
16.68	8	14.3	3.45	0 55
15.11	11	14.7	3.55	1 49
17.74	2	14.7	3.55	8 46
18.15	1	14.8	3.57	8 10
17.64	3	14.8	3.57	10 48
17.76	3	14.9	3.59	11 26
17.95	2	15.0	3.63	2 12
17.74	3	15.1	3.65	0 09
18.06	1	15.5	3.75	10 46
17.81	3	15.7	3.79	13 26
14.19	14	16.0	3.87	5 40
16.82	7	16.1	3.90	3 53

181—240				
Mag.		α 12^{m}	x	$y-10'$
		s	′	′ ″
17.96	3	16.1	3.90	1 05
17.97	1	16.2	3.92	14 50
17.84	2	16.3	3.95	1 54
18.15	1	16.4	3.96	7 57
18.15	1	16.6	3.99	8 22
16.53	9	16.6	3.99	0 31
17.28	3	16.7	4.02	2 12
18.26	2	16.8	4.04	4 05
17.56	3	16.8	4.04	8 58
16.43	8	16.8	4.06	5 51
16.56	8	16.9	4.07	1 36
16.26	8	16.9	4.07	2 03
17.01	5	17.1	4.12	6 13
18.00	3	17.4	4.20	14 03
16.90	3	17.5	4.23	11 54
17.31	3	17.5	4.23	9 46
17.98	2	17.5	4.23	0 10
16.14	9	17.8	4.29	3 13
16.37	9	18.2	4.39	1 47
17.90	2	18.2	4.39	1 30
17.81	3	18.2	4.40	12 16
18.12	2	18.4	4.45	7 24
17.38	3	18.4	4.46	1 30
17.58	3	18.7	4.53	13 32
17.39	3	18.9	4.57	10 20
9.02w	8	18.9	4.58	5 23
17.95	2	18.9	4.58	2 55
14.45	13	18.9	4.58	7 05
17.99	2	19.0	4.60	8 32
16.83	7	19.2	4.64	6 54
17.93	1	19.6	4.72	7 54
16.83	7	19.6	4.73	4 46
16.54	7	19.6	4.73	13 04
17.79	3	19.7	4.75	9 24
12.89	16	19.7	4.76	11 39
17.14	3	19.8	4.77	7 18
17.35	3	19.9	4.79	10 39
17.17	3	20.1	4.86	13 01
17.57	3	20.2	4.87	6 16
16.87	5	20.4	4.92	8 50
18.24	1	20.7	5.01	5 27
14.29	12	20.8	5.02	11 07
18.15	1	20.8	5.03	1 09
17.97	1	21.0	5.08	9 54
16.06	9	21.1	5.09	13 22
16.90	3	21.1	5.09	10 42
18.00w	2	21	5.1	11 24
15.70	9	21.1	5.11	1 58
16.54	7	21.2	5.12	6 20
17.56	3	21.2	5.12	10 45
16.00	9	21.2	5.13	5 04
17.46	3	21.4	5.17	10 40
17.27	3	21.5	5.19	4 07
17.99	3	21.5	5.21	0 41
17.61	3	21.5	5.21	12 59
17.80	1	21.7	5.24	1 39
18.19	1	21.7	5.25	5 41
18.01	1	21.7	5.26	13 04
16.19	9	21.8	5.28	8 31
18.26	2	22.0	5.32	4 25

241—300				
Mag.		α 12^{m}	x	$y-10'$
		s	′	′ ″
16.85	5	22.2	5.35	7 24
17.02	3	22.2	5.35	12 18
17.37	3	22.2	5.36	13 24
17.91	2	22.2	5.37	0 27
18.06	1	22.4	5.41	10 01
17.64	3	22.6	5.46	13 21
16.93	5	22.7	5.48	8 42
16.90	5	22.8	5.50	5 01
16.09	9	22.9	5.53	8 18
16.25	9	22.9	5.53	2 43
17.33	3	23.0	5.56	12 32
18.06	2	23.6	5.70	8 06
17.72	2	23.7	5.72	13 46
15.32	9	23.7	5.73	5 18
16.84	5	24.1	5.82	2 13
17.98	3	24.2	5.85	0 43
17.96	3	24.3	5.88	12 26
16.72	3	24.5	5.92	13 04
18.11	3	24.5	5.92	6 11
18.10	1	24.5	5.92	10 00
16.49	7	24.6	5.94	14 07
17.43	3	25.7	6.19	13 20
17.14	3	25.8	6.22	10 36
14.41	13	26.0	6.27	7 42
16.47	8	26.0	6.28	7 35
11.89	14	26.0	6.29	0 23
18.04	2	26.1	6.30	9 16
17.78	2	26.1	6.31	12 03
17.50	3	26.2	6.32	1 57
17.65	3	26.2	6.33	10 05
17.97	1	26.2	6.33	14 00
18.19	1	26.3	6.35	4 51
18.00	2	26.3	6.36	8 57
17.78	3	26.8	6.47	3 51
18.12	2	26.9	6.51	6 47
17.18	3	27.1	6.56	8 15
18.06	1	27.5	6.64	11 58
17.89	1	27.5	6.65	14 18
18.15	1	27.7	6.69	8 32
17.74	3	27.8	6.72	6 31
17.76	3	27.8	6.72	4 04
16.71	7	28.0	6.77	1 27
18.15	1	28.2	6.81	2 30
18.06	1	29.0	7.00	5 31
17.67	3	29.4	7.10	2 25
18.01	1	29.6	7.15	14 12
17.24	3	29.9	7.23	0 43
15.11	11	30.2	7.29	1 57
17.95	2	30.2	7.29	7 59
16.76	3	30.7	7.42	6 11
15.95	9	31.0	7.48	2 56
15.29	9	31.0	7.48	1 54
17.94	3	31.1	7.51	12 55
16.32	8	31.1	7.51	0 57
18.05	2	31.2	7.53	5 59
16.77	5	31.3	7.54	10 10
17.74	3	31.3	7.55	10 59
18.06	2	31.4	7.58	13 52
16.06	9	31.5	7.61	15 00
17.79	3	31.7	7.65	13 11

25 prec. + $67^{\mathrm{s}}.8$, − 0′ 27″

301—330				
Mag.		α 12^{m}	x	$y-10'$
		s	′	′ ″
16.08	9	31.8	7.68	13 43
13.92	13	31.9	7.69	10 16
18.15	1	32.2	7.77	5 28
15.04	12	32.3	7.80	14 20
17.71	3	32.7	7.89	8 24
16.28	8	32.9	7.96	1 54
18.15	1	32.9	7.97	6 09
15.87	9	33.2	8.02	12 28
16.99	3	33.2	8.02	3 01
17.10	3	33.2	8.03	3 05
17.04	3	33.3	8.04	6 29
17.53	3	33.5	8.11	11 43
17.30	3	33.7	8.14	14 22
17.99	2	33.8	8.17	6 15
16.80	5	33.8	8.18	7 32
16.22	7	34.4	8.29	14 10
14.39	12	34.4	8.30	4 52
17.66	3	34.6	8.36	14 31
17.80	3	35.0	8.46	13 30
18.10	1	35.0	8.46	1 00
16.50	7	35.1	8.48	10 27
16.78	3	35.3	8.53	14 13
17.92	3	35.4	8.56	7 20
14.82	12	35.6	8.61	8 51
18.01	1	35.7	8.62	12 26
16.54	8	35.8	8.64	8 34
17.97	1	35.9	8.67	14 50
18.10	1	36.0	8.71	0 54
17.90	3	36.1	8.73	11 26
17.98	2	36.2	8.74	2 50

331—360				
Mag.		α 12^{m}	x	$y-10'$
		s	′	′ ″
15.55	7	36.6	8.85	12 12
17.66	3	36.8	8.91	6 48
16.44	9	37.0	8.93	1 41
18.00	2	37.2	8.99	6 31
17.93	3	37.4	9.03	12 18
18.06	1	37.5	9.04	1 09
13.74	13	37.5	9.05	9 56
18.01	3	37.7	9.11	10 52
18.06	1	37.9	9.16	9 52
15.82	9	38.1	9.19	7 06
16.49	8	38.3	9.25	0 01
17.49	3	38.7	9.35	8 36
17.75	1	38.8	9.37	14 40
16.17	9	38.9	9.39	0 52
17.97	1	39.1	9.44	9 52
17.45	3	39.4	9.52	9 42
15.79	9	39.5	9.55	1 59
17.57	3	39.6	9.57	13 10
17.55	3	39.7	9.59	0 08
16.61	7	40.2	9.69	2 07
17.98	2	40.2	9.71	8 24
16.70	7	40.4	9.75	6 20
16.69	7	40.4	9.76	7 11
16.19	7	40.6	9.79	6 46
17.56	1	40.8	9.84	14 53
16.48	4	40.8	9.85	11 08
17.59	3	40.8	9.86	6 50
17.26	3	41.0	9.89	11 08
17.86	2	41.0	9.90	10 46
15.98	9	41.1	9.92	11 26

361—390				
Mag.		α 12^{m}	x	$y-10'$
		s	′	′ ″
17.23	3	41.3	9.98	7 43
17.85	3	41.6	10.06	10 08
17.90	3	41.7	10.08	1 26
17.60	3	41.9	10.12	0 03
17.06	3	42.0	10.15	2 11
15.89	9	42.1	10.17	8 39
15.93	9	42.3	10.22	5 27
17.86w	2	42	10.3	13 12
16.91	1	42.6	10.30	14 53
16.47	8	42.8	10.35	6 56
16.62	7	43.0	10.38	7 17
14.76	11	43.2	10.43	0 32
17.68	3	43.2	10.43	1 42
17.82	3	43.5	10.50	5 23
17.07	3	43.5	10.50	9 38
17.75	3	43.6	10.52	12 44
18.01	1	43.7	10.55	10 14
17.93	1	43.9	10.59	14 48
17.31	3	44.1	10.66	4 41
17.92w	2	44	10.7	12 00
17.27	2	44.4	10.73	6 47
13.55	16	44.5	10.74	11 14
17.56	3	44.5	10.75	9 11
17.75	1	44.5	10.76	6 45
17.03	3	44.6	10.77	7 36
15.95	8	44.7	10.80	0 32
16.43	8	44.9	10.84	8 26
17.61	1	44.9	10.85	4 20
17.70	3	45.0	10.87	3 20
17.10	3	45.0	10.87	7 42

391—420				
Mag.		α 12^{m}	x	$y-10'$
		s	′	′ ″
17.47	3	45.0	10.87	7 40
17.66	3	45.0	10.87	1 15
17.88	2	45.0	10.88	3 34
16.73	5	45.2	10.93	0 50
17.44	3	45.3	10.94	1 07
16.24	9	45.3	10.95	6 11
18.10	2	45.3	10.95	10 23
16.65	5	45.3	10.96	2 28
17.50	3	45.4	10.97	5 34
16.54	7	45.5	10.99	0 52
14.60	12	45.5	10.99	1 31
17.78	3	45.6	11.02	10 18
17.82	2	45.7	11.04	10 56
17.22	3	45.9	11.08	3 26
17.41	3	45.9	11.08	8 48
18.06	1	46.1	11.12	8 13
17.41	3	46.2	11.15	2 45
13.38	16	46.5	11.22	6 17
18.16	2	46.5	11.23	10 07
11.85	14	46.6	11.26	4 20
17.93	1	46.8	11.29	14 44
16.98	3	46.9	11.33	3 32
16.02	9	47.0	11.34	11 14
15.40	10	47.3	11.42	4 00
17.70	3	47.4	11.44	12 25
16.27	9	47.7	11.53	5 17
17.19	3	47.8	11.55	10 38
17.69	3	48.0	11.59	9 58
16.04	9	48.2	11.64	5 35
18.06	1	48.2	11.65	4 44

421—431				
Mag.		α 12^{m}	x	$y-10'$
		s	′	′ ″
17.23	3	48.6	11.74	10 29
18.06	1	48.9	11.80	2 19
16.54	7	49.2	11.89	4 28
17.93	1	49.4	11.93	13 16
15.74	9	49.5	11.94	3 39
17.04	3	49.6	11.98	2 25
15.18	11	49.7	12.01	6 51
18.13	2	49.9	12.04	1 11
17.46	1	49.9	12.04	14 47
17.92	3	49.9	12.06	9 20
17.37	3	50.0	12.08	10 27

25 prec. + 67$^{\mathrm{s}}$8, − 0′ 28″

6h Area 122. Supplementary Stars − 14°, − 15°

1s—20s				
Mag.		α 11^{m}	x	$y-10'$
		s	′	′
17.14	2	36	94.2	4.6
15.93	7	36	94.2	8.0
17.06	2	36	94.3	7.4
17.53	2	37	94.4	3.6
17.72	2	38	94.6	1.8
16.95	2	37	94.6	7.6
17.58	2	37	94.6	8.8
13.42	14	38	94.7	2.4
16.72	2	38	94.7	4.0
15.53	6	38	94.8	7.2
17.69	2	39	94.9	7.6
16.96	2	39	94.9	8.0
17.20	2	39	94.9	8.6
14.26	11	39	95.0	1.4
16.80	2	39	95.0	3.6
15.03	9	40	95.2	1.0
17.67	2	41	95.4	0.4
13.30	13	41	95.4	9.2
16.35	6	41	95.4	9.8
17.72	2	41	95.5	3.0

21s—40s				
Mag.		α 11^{m}	x	$\frac{y-70'}{y-10'}$
		s	′	′
17.84	2	43	95.8	1.8
16.00	6	43	95.8	8.4
16.38	7	44	96.0	6.7
17.55	2	44	96.1	7.0
17.82	2	44	96.1	8.4
17.46	2	44	96.1	8.6
16.48	6	44	96.2	6.4
15.73	7	44	96.2	8.6
17.74	2	45	96.3	0.0
14.71	10	45	96.3	0.6
13.52	13	45	96.3	11.9
16.39	6	45	96.4	5.2
17.73	2	45	96.4	9.8
15.75	7	45	96.4	11.6
17.66	2	46	96.6	59.2
15.32	7	46	96.6	59.7
16.34	7	45	96.6	1.0
17.80	2	46	96.7	1.6
17.44	2	46	96.7	3.2
17.82	2	46	96.7	10.0

41s—60s				
Mag.		α 11^{m}	x	$\frac{y-70'}{y-10'}$
		s	′	′
16.12	7	46	96.7	10.7
16.49	4	47	96.8	3.4
14.28	10	47	96.8	8.9
17.54	2	47	96.8	10.2
17.84	2	47	96.9	58.9
15.44	6	47	96.9	59.5
16.42	6	47	96.9	0.8
15.14	8	47	96.9	1.8
17.41	2	50	97.7	57.4
17.80	2	51	97.8	59.2
17.61	2	53	98.2	58.2
17.74	2	53	98.2	59.2
17.72	2	53	98.4	58.8
17.28	2	54	98.6	58.8
16.36	4	54	98.6	0.0
15.63	7	56	99.0	57.6
16.80	2	56	99.1	56.4
17.72	2	56	99.1	57.6
17.72	2	57	99.2	57.6
15.76	7	58	99.4	57.0

61s—80s				
Mag.		α 11^{m}	x	$\frac{y-70'}{y-10'}$
		s	′	′
17.60	2	58	99.4	57.6
17.87	2	58	99.4	57.7
17.40	2	58	99.4	57.8
17.11	2	57	99.4	58.8
17.26:	2	59	99.8	57.3
14.58	11	60	99.9	57.4
16.50	6	60	0.1	59.2
16.26	7	62	0.4	59.6
16.63	3	62	0.6	57.0
14.77	10	62	0.6	57.1
17.12	2	62	0.6	58.7
15.42	5	62	0.6	59.7
17.89	2	64	0.9	59.2
17.03	2	64	1.0	55.8
16.50	6	64	1.0	0.0
17.27	2	65	1.1	56.7
16.33	7	65	1.2	56.2
17.14	2	65	1.2	56.4
17.88	2	65	1.2	57.8
17.74	2	65	1.3	56.4

81s—100s				
Mag.		α 12^{m}	x	$\frac{y-70'}{y-10'}$
		s	′	′
16.91	2	5	1.3	58.4
16.35	7	6	1.4	55.9
17.70	2	7	1.8	55.2
17.99	2	8	1.8	57.7
16.71	2	8	2.0	55.6
17.06	2	8	2.0	57.9
17.38	2	9	2.2	15.8
16.32	7	10	2.4	55.4
17.76	2	10	2.4	56.0
16.07	7	10	2.4	58.8
16.90	2	10	2.4	15.8
17.60	2	11	2.6	15.7
17.48	2	12	2.8	56.6
16.60	4	12	3.0	59.4
17.40	2	13	3.0	15.8
16.66	4	13	3.2	56.8
17.70	2	14	3.3	57.2
17.22	2	15	3.6	55.2
14.10	11	15	3.6	15.4
17.76	2	15	3.7	55.6

25 prec. + 67$^{\mathrm{s}}$8, − 0′ 27″

Area 122. Supplementary Stars

101*s*—130*s*					131*s*—160*s*					161*s*—190*s*					191*s*—208*s*				
Mag.		α 12^m	x	$y-70'$	Mag.		α 12^m	x	$y-70'$ $y-10'$	Mag.		α 12^m	x	$y-70'$ $y-10'$	Mag.		α 12^m	x	$y-10'$
		s	′	′			s	′	′			s	′	′			s	′	′
17.06	2	17	4.2	56.0	15.35	8	30	7.4	58.7	16.38	6	51	12.2	58.8	16.40	6	56	13.6	6.4
15.53	7	18	4.3	57.1	17.58	2	32	7.6	15.2	15.95	7	51	12.2	5.0	13.04	14	56	13.6	6.8
17.31	2	20	4.8	59.4	17.74	2	33	7.9	55.8	15.48	8	51	12.3	3.2	12.41	14	57	13.8	4.0
17.39	2	20	4.9	56.6	16.17	7	33	7.9	56.4	17.84	2	51	12.3	11.4	17.34	2	57	13.8	4.6
17.92	2	22	5.2	57.0	17.94	2	33	7.9	58.4	16.94	2	51	12.3	11.9	17.34	2	57	13.8	7.4
17.32	2	23	5.4	55.7	17.84	2	34	8.1	56.2	17.36	2	51	12.4	0.4	17.17	2	57	13.8	7.8
16.86	2	23	5.6	54.8	15.86	7	34	8.1	58.4	14.47	11	52	12.4	1.2	14.85	9	57	13.8	8.8
14.41	11	24	5.7	57.9	17.75	2	34	8.2	59.2	17.94	2	51	12.4	4.2	17.25	2	57	13.8	10.4
16.58	4	25	6.0	55.7	16.31	7	34	8.3	55.7	14.13	12	52	12.6	0.4	17.72	2	59	14.3	6.2
16.63	4	25	6.0	57.6	14.56	11	34	8.3	56.0	16.33	6	52	12.6	6.2	17.48	2	59	14.3	8.2
16.27	7	26	6.3	59.2	17.14	2	35	8.4	56.4	17.39	2	52	12.6	9.0	17.58	2	59	14.4	1.8
17.18	2	26	6.4	55.9	17.82	2	36	8.6	56.9	16.62	4	52	12.6	11.1	16.01	7	60	14.6	3.2
17.55	2	26	6.4	57.5	14.96	10	37	8.8	59.4	16.65	4	53	12.7	59.8	15.89	7	60	14.6	4.4
17.72	2	26	6.4	58.4	17.97	2	37	8.9	58.6	15.23	8	53	12.8	6.0	17.74	2	61	14.7	3.2
15.16	8	27	6.6	56.0	16.08	7	38	9.2	59.9	17.86	2	53	12.8	7.4	16.21	7	61	14.8	3.4
17.32	2	28	6.7	56.6	17.86	2	39	9.3	57.6	17.38	2	53	12.9	59.7	17.34	2	61	14.8	6.2
16.35	5	28	6.7	58.0	16.47	3	40	9.7	56.9	17.42	2	54	13.0	7.8	17.24	2	62	14.9	4.6
16.56	4	28	6.8	55.2	17.90†	2	40	9.7	57.0	17.16	2	54	13.0	10.7	17.25	2	63	15.1	4.7
15.24	8	28	6.8	56.2	17.31	2	41	9.9	59.0	17.41	2	54	13.1	59.2					
16.95	2	29	7.0	55.7	17.30	2	42	10.2	58.8	16.44	6	54	13.1	3.4					
16.28	7	29	7.0	55.9	9.88	8	43	10.3	57.9	17.17	2	55	13.2	0.0					
17.38	2	29	7.1	58.2	17.27	2	43	10.4	59.0	16.06	7	55	13.2	3.8					
17.88	2	29	7.1	58.4	17.87	2	44	10.6	59.7	17.43	2	55	13.3	59.6					
17.70	2	30	7.2	56.0	16.13	7	45	10.9	58.4	16.88	2	56	13.4	2.6					
15.75	7	30	7.2	58.0	17.92	2	45	10.9	59.3	16.01	7	56	13.4	2.7					
15.49	8	30	7.2	58.7	16.32	7	46	11.0	58.6	17.84	2	56	13.4	7.4					
16.54	7	30	7.2	59.8	17.54	2	47	11.4	59.6	14.29	12	56	13.4	7.6					
17.58	2	30	7.3	59.2	17.80	2	49	11.9	58.7	15.58	7	55	13.4	9.4					
16.13	6	30	7.4	57.1	16.42	7	50	12.0	59.6	14.63	10	55	13.4	11.6					
17.06	2	31	7.4	58.2	17.60	2	50	12.1	8.5	16.77	2	56	13.6	1.0					

25 prec. + $67\overset{s}{.}8$, − 0′ 28″

7^h

Area 123. Center for 1900: $7^h\ 15^m$ − 15° 0′ (15′ × 15′)

− 14°, − 15°

1—20					21—40					41—60					61—80					81—100				
Mag.		α 14^m	x	$y-60'$ y	Mag.		α 14^m	x	$y-60'$ y	Mag.		α 14^m	x	$y-60'$ y	Mag.		α 14^m	x	$y-60'$ y	Mag.		α 14^m	x	$y-60'$ y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
14.34	11	41.6	95.55	2 43	17.01	1	42.6	95.81	1 27	18.32	1	43.8	96.07	6 10	16.21	8	44.7	96.30	56 35	18.27	1	45.7	96.55	57 13
18.32	1	41.6	95.56	6 03	18.16	1	42.7	95.83	55 08	17.26	3	43.8	96.08	6 20	16.42	7	44.7	96.31	3 42	16.63	5	45.7	96.55	0 44
17.49	3	41.7	95.57	5 52	17.18	3	42.8	95.84	58 36	17.12	3	43.8	96.08	57 13	14.85	11	44.9	96.36	8 21	16.29	9	45.8	96.57	0 36
15.52	10	41.7	95.57	2 22	18.16	1	42.8	95.85	3 14	18.27	1	43.8	96.08	57 50	13.28	15	45.0	96.37	5 56	18.27	1	45.8	96.57	57 18
18.50	2	41.8	95.60	5 19	16.98	3	42.8	95.86	5 44	16.07	9	43.9	96.09	58 01	14.19	4	45.0	96.37	57 44	17.69	2	45.8	96.58	59 51
16.33	8	41.9	95.62	59 20	15.45	10	42.8	95.87	9 28	18.32	1	43.9	96.10	5 22	18.27	1	45.0	96.37	57 06	14.29	11	45.8	96.58	5 52
9.63w	8	41.9	95.62	56 38	16.08	7	43.0	95.90	2 21	17.62	2	44.0	96.12	0 20	13.83	9	45.0	96.38	2 30	18.37	1	45.9	96.60	4 58
18.16	1	41.9	95.63	0 22	17.82:	1	43.0	95.90	2 47	10.80:	11	44.0	96.12	0 02	17.37	3	45.0	96.38	7 22	17.61	3	45.9	96.61	0 25
14.74	12	41.9	95.63	8 01	17.01	1	43.0	95.91	1 40	16.68	3	44.2	96.17	3 15	12.84	5	45.2	96.43	57 43	17.67	3	45.9	96.61	56 54
16.26	9	42.0	95.64	4 57	18.32	1	43.0	95.91	6 48	17.83	2	44.2	96.18	3 53	16.20	9	45.2	96.43	9 20	17.28	3	45.9	96.61	59 12
17.36	2	42.0	95.64	3 44	17.88	1	43.2	95.94	59 30	16.92	3	44.2	96.18	9 36	9.64w	9	45.3	96.44	59 34	17.73	3	45.9	96.61	56 59
17.59	3	42.0	95.65	5 04	16.95	1	43.2	95.95	55 48	17.12	3	44.2	96.18	5 40	15.18	5	45.3	96.46	2 31	17.83	3	45.9	96.61	9 58
18.16	2	42.1	95.67	58 01	15.65	9	43.2	95.95	4 48	13.81:	1	44.3	96.19	59 55	15.69	2	45.5	96.49	4 32	17.09	1	46.0	96.63	1 51
17.37	3	42.2	95.69	59 24	17.11	3	43.2	95.95	6 17	17.42	2	44.3	96.20	5 32	18.21	1	45.5	96.50	55 55	17.96	2	46.1	96.64	57 13
17.60	2	42.2	95.71	58 55	17.71	1	43.4	95.99	56 27	18.27	1	44.4	96.22	57 59	16.02	8	45.5	96.50	5 54	14.22	12	46.1	96.65	56 24
16.09	9	42.4	95.76	2 38	17.01	1	43.4	96.01	55 04	18.37	2	44.4	96.23	6 44	17.52:	1	45.5	96.51	56 32	18.27	1	46.1	96.66	57 23
18.16	1	42.5	95.78	55 34	14.11	8	43.4	96.01	4 36	18.21	1	44.7	96.29	55 59	15.33	10	45.5	96.51	59 00	17.24	2	46.2	96.68	3 50
18.16	1	42.6	95.79	55 18	16.64	3	43.5	96.02	5 56	16.70	3	44.7	96.29	4 16	18.27	1	45.6	96.52	4 46	17.77	1	46.2	96.68	3 47
17.65	2	42.6	95.79	9 03	16.72	3	43.5	96.02	7 39	17.84	2	44.7	96.29	4 53	15.90	9	45.7	96.54	2 12	17.41	3	46.2	96.68	7 14
17.58	1	42.6	95.81	55 44	17.76	2	43.6	96.04	4 06	9.57w	8	44.7	96.30	1 31	17.36	3	45.7	96.54	57 29	18.32	1	46.3	96.69	9 15

25 prec. + $68\overset{s}{.}2$, − 2′ 41″

101—160					161—220					221—280					281—340					341—400				
Mag.		α 14^{m}	x	$y-60'$ y	Mag.		α 14^{m}	x	$y-60'$ y	Mag.		α 14^{m}	x	$y-60'$ y	Mag.		α 14^{m}	x	$y-60'$ y	Mag.		α 14^{m}	x	$y-60'$ y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
16.00	9	46.3	96.69	2 38	16.98	2	49.6	97.49	1 49	17.42	2	52.5	98.21	59 52	18.28	2	55.7	98.96	55 38	18.37	1	58.5	99.65	59 39
16.76	3	46.3	96.70	5 40	17.24	3	49.6	97.49	4 51	17.61	3	52.5	98.21	58 51	18.43	1	55.9	99.00	4 44	14.46	12	58.7	99.68	58 13
17.99	1	46.3	96.71	57 38	16.05	9	49.6	97.50	4 39	18.37	1	52.6	98.23	9 43	16.80	3	56.0	99.03	5 50	17.34	3	58.7	99.68	56 00
16.66	4	46.4	96.72	58 11	16.49	4	49.7	97.52	1 50	18.16	1	52.8	98.25	59 45	13.32	13	56.0	99.03	7 55	18.37	1	58.8	99.71	0 27
17.66	2	46.6	96.75	5 24	18.32	1	49.9	97.56	58 14	18.45	2	52.8	98.25	9 39	15.67	9	56.0	99.03	7 12	17.35	3	58.9	99.72	1 54
17.88	1	46.6	96.75	8 31	16.79	3	49.9	97.56	8 38	18.37	1	52.8	98.26	2 23	16.00	9	56.1	99.04	0 44	18.32	1	58.9	99.72	56 26
17.63	3	46.6	96.76	4 00	16.64	3	50.0	97.58	6 02	17.80	2	53.0	98.29	2 54	16.58	8	56.1	99.05	3 28	18.43	1	59.0	99.76	2 12
16.83	3	46.8	96.79	4 07	15.80	9	50.0	97.58	1 39	17.77	3	53.0	98.30	4 15	13.25	15	56.1	99.06	0 13	16.57	5	59.1	99.77	7 11
17.58	2	46.8	96.80	2 59	13.32	15	50.1	97.61	2 13	18.27	1	53.0	98.30	56 15	13.06	15	56.2	99.07	55 34	17.42	2	59.1	99.78	7 09
17.71	1	46.8	96.80	55 14	17.37	3	50.1	97.61	59 38	18.37	1	53.0	98.31	3 18	16.37	2	56.2	99.08	56 46	12.89	18	59.2	99.80	8 29
17.43	3	46.8	96.80	9 03	14.71	12	50.2	97.62	0 08	18.37	1	53.0	98.31	0 31	15.31	10	56.3	99.11	57 37	18.27	1	59.2	99.81	55 28
15.94	10	46.8	96.81	8 49	16.91	2	50.2	97.63	7 16	16.39	9	53.0	98.31	0 19	17.40	3	56.3	99.11	2 12	18.37	1	59.3	99.82	1 03
17.66	2	47.2	96.90	58 31	16.22	9	50.3	97.64	56 39	17.58	2	53.2	98.35	1 40	13.07:	1	56.3	99.11	6 37	16.67	3	59.3	99.82	7 21
16.46	5	47.4	96.94	5 32	17.58	3	50.3	97.65	0 31	17.46*	1	53.2	98.36	57 49	17.62	3	56.4	99.13	7 35	18.27	1	59.4	99.84	55 17
16.30	7	47.4	96.96	58 34	18.37	1	50.3	97.66	5 57	17.71	1	53.2	98.36	57 46	16.34	9	56.5	99.15	7 24	17.15	4	59.4	99.85	5 27
16.50	5	47.4	96.96	3 23	18.16	1	50.4	97.67	7 44	17.26	3	53.2	98.36	8 16	15.14	10	56.5	99.15	4 36	18.32	1	59.5	99.87	1 09
14.69	12	47.5	96.98	6 54	17.82	2	50.4	97.68	0 21	18.27	1	53.3	98.38	5 13	16.95	3	56.6	99.17	6 52	18.37	1	59.6	99.89	0 20
17.27	3	47.6	96.99	3 51	17.50	2	50.6	97.73	0 07	16.17	9	53.4	98.39	56 26	18.27	1	56.7	99.21	56 32	16.86	3	59.6	99.89	1 46
18.16	1	47.6	96.99	3 46	17.76	2	50.6	97.73	5 05	11.54	12	53.4	98.40	57 04	18.43	1	56.7	99.21	2 11	16.68	7	59.6	99.89	4 20
16.70	4	47.6	96.99	1 07	18.20	2	50.7	97.74	8 04	17.13	3	53.4	98.40	2 28	17.88	2	56.8	99.22	2 30	15.01	9	59.6	99.89	59 17
18.07	2	47.7	97.03	7 24	16.50	7	50.7	97.75	0 34	16.32	9	53.4	98.41	6 10	18.37	1	56.9	99.25	2 19	16.19	9	59.6	99.89	9 17
18.32	1	47.8	97.04	0 52	17.51	3	50.8	97.78	3 11	14.85	10	53.4	98.41	9 08	14.84	12	56.9	99.26	59 59	15.70	7	59.7	99.93	5 21
17.69	3	47.8	97.05	55 31	17.49	2	50.8	97.78	9 23	18.37	1	53.6	98.44	2 56	16.79	3	56.9	99.26	56 56	17.55	3	59.7	99.93	3 17
15.98	9	47.9	97.07	57 17	16.24	9	50.9	97.79	59 18	17.80	2	53.6	98.45	5 56	14.96	10	57.0	99.28	3 02	16.08	9	59.8	99.94	55 04
18.32	1	47.9	97.08	1 06	17.44	2	50.9	97.79	6 21	16.42	7	53.7	98.48	5 23	18.04	3	57.1	99.29	1 20	18.32	1	59.8	99.94	56 22
17.44	2	47.9	97.08	1 30	17.62	2	50.9	97.80	7 59	18.37	1	53.8	98.50	59 44	16.18	9	57.1	99.29	58 43	18.21	1	59.8	99.96	3 45
17.88	2	48.0	97.09	3 29	17.94	1	51.0	97.83	9 48	18.27	1	53.8	98.51	4 09	15.39	10	57.1	99.31	57 51	17.08	3	59.8	99.96	7 56
18.21	1	48.0	97.09	8 13	17.78	2	51.1	97.84	6 03	17.69	2	53.8	98.51	9 34	18.43	1	57.2	99.32	5 34	14.58	12	60.0	99.99	2 22
18.37	1	48.0	97.11	7 51	16.70	3	51.2	97.88	2 28	18.43	1	53.9	98.52	4 47	17.01	3	57.3	99.34	7 38	18.05	1	60.0	0.00	7 54
17.79	3	48.1	97.12	59 32	17.28	3	51.3	97.91	1 15	18.37	1	54.0	98.55	0 19	16.90	3	57.3	99.35	5 29	17.28	3	60.1	0.02	6 41
17.82	3	48.1	97.13	58 06	18.37	1	51.4	97.92	2 39	13.38	15	54.1	98.58	7 41	17.16	3	57.3	99.35	55 01	17.80	3	60.1	0.02	59 14
16.52	5	48.1	97.13	3 51	16.91	3	51.4	97.92	0 34	17.12	3	54.1	98.58	7 31	16.39	9	57.4	99.38	59 56	17.76	2	60.1	0.03	59 42
17.04	3	48.1	97.13	7 36	18.21	1	51.4	97.92	55 44	18.27	1	54.2	98.59	56 46	16.98	3	57.4	99.38	5 00	17.50	3	60.1	0.03	6 07
18.27	1	48.2	97.15	9 49	15.95	9	51.4	97.92	7 19	15.46	9	54.2	98.60	8 56	17.94	2	57.5	99.40	3 15	18.27	1	60.1	0.03	3 32
15.41	9	48.3	97.18	8 32	17.92	2	51.4	97.93	4 48	18.16	1	54.2	98.61	0 02	18.21	1	57.5	99.41	59 31	16.41	8	60.3	0.07	4 26
16.49	5	48.3	97.18	6 28	17.79	2	51.5	97.94	5 18	16.45	8	54.2	98.61	3 03	17.64	2	57.5	99.41	55 52	17.26	3	60.3	0.08	9 02
17.74	2	48.3	97.18	0 47	18.20	2	51.5	97.95	5 13	15.88	8	54.3	98.62	7 58	11.67	13	57.7	99.46	56 44	16.93	3	60.4	0.10	7 14
18.37	1	48.4	97.19	4 44	16.88	3	51.5	97.95	3 53	18.37	1	54.5	98.68	6 01	18.27	1	57.7	99.46	8 04	16.76	3	60.4	0.11	1 57
18.32	1	48.4	97.20	0 23	18.00	2	51.5	97.95	57 24	16.73	3	54.5	98.68	58 08	17.58	2	57.7	99.48	55 08	16.61	5	60.4	0.11	2 46
16.55	3	48.5	97.22	2 06	16.82	3	51.6	97.97	9 03	18.37	1	54.6	98.70	0 09	16.07	7	57.9	99.49	56 38	17.62	2	60.4	0.11	59 51
17.01	1	48.5	97.22	0 10	16.41	7	51.6	97.97	1 11	16.84	3	54.8	98.75	58 57	18.43	1	57.9	99.49	1 23	13.36	15	60.5	0.12	8 39
14.13	13	48.5	97.22	8 05	17.89	3	51.6	97.98	5 32	18.00	2	54.9	98.77	59 37	17.88	1	57.9	99.51	55 31	16.83	3	60.5	0.13	56 48
18.37	1	48.5	97.22	5 03	17.76	2	51.7	97.99	3 22	18.32	1	54.9	98.78	7 51	15.29	10	57.9	99.51	57 46	18.37	1	60.6	0.15	0 22
17.56	2	48.6	97.26	1 41	17.66	2	51.7	97.99	58 45	17.70	3	54.9	98.78	8 15	17.21	3	57.9	99.51	8 29	17.81	3	60.6	0.16	1 31
17.22	3	48.7	97.27	57 25	18.27	1	51.7	98.00	56 00	17.88	1	55.0	98.79	56 22	18.43	1	58.0	99.52	7 23	16.72	4	60.6	0.16	4 49
18.36	2	48.7	97.28	1 47	15.21	9	51.7	98.00	3 32	18.27	1	55.1	98.82	55 29	17.14	3	58.0	99.53	59 04	17.64	3	60.7	0.18	55 19
16.29	8	48.8	97.29	4 38	18.32	1	51.7	98.01	6 44	18.17	2	55.1	98.83	1 06	17.08	3	58.1	99.54	1 06	17.59	2	60.7	0.18	57 59
18.32	1	48.8	97.29	58 22	15.65	9	51.8	98.02	5 21	17.72	2	55.2	98.85	1 20	15.07	10	58.1	99.55	1 13	18.27	1	60.8	0.19	57 24
18.37	1	48.8	97.30	4 53	14.52	12	51.9	98.04	3 08	17.66	2	55.2	98.85	4 08	18.43	1	58.1	99.56	5 53	18.32	1	60.8	0.20	57 14
17.35	3	48.8	97.31	1 36	16.94	3	51.9	98.05	56 09	18.21	1	55.2	98.85	55 09	16.70	5	58.2	99.57	2 10	18.21	2	60.8	0.20	2 42
18.27	1	48.8	97.31	57 44	16.45	7	51.9	98.05	5 55	17.71	2	55.2	98.86	3 44	14.44	12	58.2	99.57	56 21	17.68	2	60.9	0.22	58 29
17.84	2	48.8	97.31	55 36	17.99	1	52.1	98.09	6 01	17.43	3	55.2	98.86	4 17	16.78	3	58.2	99.57	57 11	18.48	1	61.0	0.24	6 35
14.71	10	48.8	97.31	6 10	17.62:	2	52.1	98.11	57 02	16.63	3	55.2	98.86	7 22	17.45	3	58.3	99.60	59 21	16.73	3	61.0	0.25	1 56
18.32	1	49.0	97.35	59 16	12.78	14	52.2	98.12	9 12	15.67	9	55.3	98.88	59 45	18.37	1	58.3	99.60	3 59	14.62	13	61.1	0.27	1 26
17.46	2	49.0	97.35	55 38	17.69	2	52.2	98.12	58 34	17.03	3	55.4	98.89	55 44	16.22	9	58.3	99.60	0 54	18.37	1	61.1	0.28	2 20
17.66	2	49.0	97.35	1 06	17.49	3	52.3	98.15	57 33	16.34	9	55.4	98.89	4 34	17.74	2	58.3	99.60	7 02	18.32	1	61.1	0.28	56 48
16.82	3	49.0	97.35	0 44	17.81	2	52.4	98.18	5 52	18.21	1	55.6	98.93	1 10	16.55	4	58.4	99.63	5 34	17.93	3	61.2	0.29	2 03
15.72	9	49.1	97.37	4 37	16.14	5	52.5	98.19	55 35	18.05	1	55.6	98.93	0 20	16.70	4	58.4	99.63	7 12	17.89	2	61.3	0.32	5 03
17.68	2	49.5	97.47	1 42	17.74	2	52.5	98.19	0 31	17.33	3	55.6	98.94	1 19	18.21	1	58.5	99.64	1 05	17.20	3	61.3	0.32	1 54
18.37	1	49.5	97.48	7 42	16.07	9	52.5	98.20	56 47	16.39	9	55.6	98.95	5 31	15.66	9	58.5	99.64	2 07	18.43	1	61.3	0.33	2 30

25 prec. + $68^{s}.2$, − 2′ 41″

401—460

Mag.		α 15ᵐ	x	y−60′ / y
		s	′	′ ″
16.22	7	1.4	0.35	9 27
17.86	3	1.5	0.36	7 25
17.63	3	1.5	0.36	2 15
18.21	1	1.5	0.36	58 21
17.86	3	1.5	0.36	58 11
18.43	1	1.6	0.38	8 26
17.56	3	1.6	0.39	6 34
14.83	11	1.7	0.40	55 57
16.43	3	1.7	0.40	2 13
16.67	7	1.8	0.43	3 55
16.76	3	1.8	0.43	56 24
14.96	10	1.9	0.46	57 07
14.35	12	1.9	0.46	7 50
14.46	12	2.0	0.48	1 53
16.52	9	2.1	0.50	1 58
18.27	1	2.1	0.50	1 21
17.07	3	2.3	0.55	0 59
17.83	2	2.3	0.56	8 14
18.16	1	2.5	0.60	56 39
18.08	2	2.5	0.61	5 59
18.08	2	2.6	0.62	0 54
16.89	5	2.6	0.63	5 22
17.52	3	2.6	0.63	6 46
18.43	1	2.7	0.64	5 43
17.58	1	2.7	0.64	59 02
17.92	2	2.7	0.65	59 54
17.64	3	2.7	0.65	56 25
17.81	2	2.8	0.68	55 34
18.10	1	2.8	0.68	55 05
17.40	2	2.8	0.68	57 52
17.77*	1	2.9	0.69	59 16
17.77	1	2.9	0.70	55 54
18.14	2	2.9	0.70	1 35
18.48	1	2.9	0.70	5 08
17.47	3	2.9	0.71	8 14
17.58	1	2.9	0.71	59 18
16.58	8	3.1	0.74	4 57
16.47	7	3.1	0.75	3 09
17.62	2	3.1	0.75	57 22
17.66	2	3.1	0.75	57 56
16.45	7	3.1	0.76	55 55
16.97	2	3.1	0.76	8 31
15.36	9	3.2	0.77	8 21
15.95	9	3.2	0.78	3 32
17.78	2	3.2	0.78	0 01
15.23	8	3.3	0.79	59 13
16.00	8	3.3	0.79	8 27
17.69w	2	3	0.8	6 48
12.73	17	3.4	0.82	5 21
16.46	4	3.4	0.83	3 55
18.43	1	3.5	0.85	9 27
18.43	1	3.6	0.87	2 58
17.88	1	3.7	0.89	55 53
17.98	2	3.7	0.89	6 58
18.27	1	3.7	0.90	0 25
17.83	2	3.8	0.92	59 43
17.93	2	3.8	0.92	55 11
18.37	1	3.8	0.93	58 59
17.62	2	3.9	0.94	56 01
16.92	3	4.0	0.97	6 39

461—520

Mag.		α 15ᵐ	x	y−60′ / y
		s	′	′ ″
18.27	1	4.1	1.00	1 20
18.37	1	4.1	1.00	1 02
18.00	3	4.2	1.02	2 46
16.64	3	4.2	1.02	7 42
15.62	7	4.2	1.02	9 46
17.45	3	4.2	1.02	6 56
18.43	1	4.2	1.03	1 11
18.32	1	4.2	1.03	57 41
18.48	1	4.3	1.05	7 20
15.19	9	4.4	1.06	4 02
13.76	7	4.4	1.07	59 02
16.94	2	4.5	1.08	0 02
17.74	2	4.6	1.10	58 42
18.40	2	4.6	1.11	57 46
15.97	8	4.7	1.12	0 05
17.32	3	4.7	1.12	4 16
17.78	2	4.7	1.12	6 50
18.32	1	4.7	1.13	58 46
15.81	10	4.7	1.13	56 31
16.58	4	4.8	1.15	55 45
17.39	3	4.8	1.15	2 37
16.75	4	4.8	1.16	57 13
17.55	3	4.9	1.18	0 33
15.62	9	5.0	1.19	4 25
18.48	1	5.0	1.20	4 39
17.57	3	5.0	1.20	2 37
17.74	2	5.0	1.20	59 27
16.96	3	5.0	1.21	7 09
18.21	1	5.1	1.22	58 44
15.36	10	5.1	1.22	57 33
17.94	1	5.1	1.23	58 54
17.62	2	5.1	1.23	56 46
18.37	1	5.2	1.25	58 59
16.94	3	5.3	1.28	6 05
18.48	1	5.4	1.30	4 30
15.49	9	5.4	1.30	59 18
17.53	3	5.4	1.31	57 44
17.06	3	5.4	1.31	6 17
17.74	3	5.4	1.31	0 21
14.34	13	5.5	1.32	59 45
13.01	17	5.5	1.32	3 50
17.67	3	5.5	1.33	58 33
18.37	1	5.6	1.36	59 40
17.29	2	5.7	1.37	9 33
16.93	3	5.8	1.40	5 51
13.25	15	5.8	1.40	3 40
18.37	1	5.8	1.41	56 11
15.85	9	5.9	1.42	7 13
16.58	8	6.0	1.44	5 58
14.63	8	6.0	1.44	2 58
17.60	3	6.0	1.45	58 32
14.70	11	6.0	1.46	0 54
18.37	1	6.0	1.46	58 46
16.10	9	6.1	1.48	2 19
18.48	1	6.2	1.49	2 47
14.00	9	6.2	1.50	59 03
15.07	10	6.3	1.52	56 19
16.60	3	6.3	1.52	56 11
15.81	9	6.3	1.53	2 56
18.54	1	6.3	1.53	6 33

521—580

Mag.		α 15ᵐ	x	y−60′ / y
		s	′	′ ″
15.90	9	6.4	1.54	58 01
18.10	1	6.4	1.56	56 36
17.51	3	6.6	1.60	9 53
16.52	9	6.7	1.62	2 30
14.97	9	6.7	1.62	3 18
16.82	1	6.9	1.67	3 21
18.54	1	6.9	1.67	5 15
16.96	3	6.9	1.68	56 15
15.90	9	7.0	1.70	58 53
18.00	2	7.0	1.70	4 55
15.98	9	7.0	1.70	8 14
16.85	3	7.1	1.72	6 24
17.88	2	7.2	1.73	8 39
17.84	2	7.2	1.73	2 23
16.25	9	7.2	1.74	57 04
16.81	3	7.4	1.77	9 47
17.14	2	7.4	1.77	3 42
17.52*	1	7.4	1.77	58 36
18.32	1	7.4	1.78	56 31
17.81	3	7.4	1.78	55 38
17.77	1	7.4	1.78	58 38
18.27	1	7.5	1.79	2 53
16.06	9	7.5	1.79	57 54
17.30	3	7.5	1.81	59 02
18.48	1	7.5	1.81	7 45
15.90	9	7.6	1.82	1 47
13.63	15	7.7	1.84	5 51
16.37	9	7.7	1.85	4 55
18.06	2	7.8	1.87	6 57
17.42	3	7.8	1.88	56 44
15.75	8	7.9	1.89	3 13
17.04	2	7.9	1.89	0 43
16.89	3	7.9	1.90	0 35
16.96	3	7.9	1.91	9 19
15.85	9	8.1	1.95	5 05
18.02	2	8.1	1.96	8 42
16.75	3	8.2	1.97	57 28
18.43	1	8.2	1.98	8 17
16.50	9	8.2	1.98	6 44
18.43	1	8.3	1.99	9 38
16.94	2	8.3	2.01	2 33
16.75	3	8.3	2.01	4 13
18.32	1	8.4	2.02	56 03
17.74	2	8.4	2.02	9 48
14.70	12	8.4	2.02	5 28
16.73	3	8.4	2.03	6 57
16.29	7	8.4	2.03	2 28
17.10	3	8.5	2.04	59 14
17.95	3	8.5	2.05	0 58
18.24	2	8.5	2.05	5 58
17.88w	2	9	2.1	6 24
18.37	1	8.8	2.12	0 43
17.04	3	8.8	2.12	0 14
12.55	15	8.8	2.13	55 34
18.21	1	8.9	2.14	59 39
18.54	1	8.9	2.15	4 56
18.27	1	9.1	2.20	0 35
16.63	6	9.1	2.20	2 23
17.84	3	9.1	2.21	59 33
18.06	2	9.2	2.22	2 21

581—640

Mag.		α 15ᵐ	x	y−60′ / y
		s	′	′ ″
18.27	1	9.3	2.25	9 29
15.05	9	9.4	2.27	7 56
18.48	1	9.4	2.27	3 57
16.99	3	9.4	2.28	2 40
18.32	1	9.4	2.28	56 16
16.16	9	9.5	2.30	8 49
16.88	3	9.5	2.30	8 06
16.31	9	9.5	2.31	7 32
15.06	9	9.7	2.34	58 58
16.58	3	9.7	2.35	57 42
16.86	3	9.7	2.35	55 08
18.05	1	9.8	2.37	4 06
16.21	9	9.8	2.37	3 41
17.94	2	9.8	2.38	2 09
18.54	1	9.9	2.39	4 24
18.10	1	9.9	2.39	59 21
18.48	1	9.9	2.39	5 33
18.48	1	9.9	2.41	5 59
17.07	3	10.0	2.42	9 37
16.62	4	10.1	2.44	8 13
18.21	1	10.2	2.46	4 08
17.66	3	10.3	2.48	58 34
18.27	1	10.3	2.48	56 54
18.12	3	10.4	2.49	3 04
18.48	1	10.4	2.49	1 48
18.11	2	10.4	2.50	2 46
18.08	2	10.4	2.50	1 05
17.60	2	10.4	2.50	56 55
17.75	3	10.4	2.51	59 09
17.74	2	10.4	2.51	57 54
17.03	3	10.5	2.52	7 44
17.33	3	10.5	2.53	56 31
14.52	13	10.6	2.54	5 06
16.36	9	10.6	2.54	5 10
17.55	3	10.6	2.55	9 29
18.43	1	10.6	2.55	59 48
18.00	2	10.6	2.55	55 42
18.32	1	10.6	2.56	57 24
17.68	2	10.7	2.57	57 54
15.97	8	10.7	2.57	5 30
16.04	9	10.8	2.59	7 17
17.74	2	10.8	2.59	8 44
18.37	1	10.8	2.59	9 06
18.43	1	10.8	2.61	0 18
17.99	1	10.9	2.62	55 15
17.62	2	10.9	2.62	56 18
16.41	9	11.0	2.65	5 19
17.27	3	11.2	2.69	59 28
18.43	1	11.2	2.71	0 53
17.40	2	11.3	2.72	2 24
18.11	2	11.3	2.72	59 38
18.32	1	11.3	2.73	58 39
17.85	3	11.4	2.75	1 21
18.37	1	11.4	2.76	0 34
17.66	2	11.4	2.76	56 38
14.81	11	11.5	2.77	56 54
15.43	9	11.5	2.77	5 34
18.32	3	11.5	2.78	4 06
17.99	1	11.7	2.82	4 53
16.84	3	11.7	2.82	8 14

641—700

Mag.		α 15ᵐ	x	y−60′ / y
		s	′	′ ″
17.07	3	11.7	2.82	5 46
17.57	3	11.8	2.84	0 48
17.82	1	11.8	2.84	55 44
17.48	3	11.8	2.85	0 30
18.37	1	11.9	2.88	0 15
16.67	3	11.9	2.88	5 55
17.47	3	11.9	2.88	9 38
16.69	8	12.0	2.89	2 50
15.19	9	12.1	2.92	59 55
18.14	2	12.1	2.93	7 10
17.26	3	12.2	2.94	0 42
14.93	11	12.2	2.96	9 47
17.10	3	12.3	2.97	56 01
16.14	9	12.3	2.97	7 21
18.48	1	12.3	2.98	7 52
16.09	9	12.3	2.98	8 07
16.39	7	12.4	3.00	56 05
16.29	7	12.4	3.00	55 33
17.88	1	12.4	3.01	4 47
16.74	3	12.5	3.03	57 15
17.94	2	12.5	3.03	7 33
16.63	3	12.6	3.04	58 44
16.27	9	12.6	3.05	55 11
8.05w	5	12.6	3.05	4 31
18.59	1	12.6	3.06	5 10
14.19	13	12.7	3.07	3 33
16.91	3	12.7	3.07	2 47
17.33	3	12.7	3.08	58 52
18.54	1	12.8	3.09	5 41
16.41	9	12.8	3.11	9 33
16.73	7	13.0	3.16	6 37
17.02	3	13.0	3.16	58 19
17.93	3	13.1	3.17	3 44
18.32	1	13.1	3.17	3 58
17.37	3	13.2	3.21	2 50
17.04:	3	13.4	3.23	8 00
14.05	11	13.4	3.24	0 41
15.80	10	13.5	3.26	55 37
15.43	10	13.6	3.27	56 30
18.32	1	13.7	3.29	57 12
18.08	2	13.7	3.31	3 16
17.81	3	14.0	3.38	8 14
18.48	1	14.1	3.40	1 14
17.19	3	14.1	3.41	57 48
16.34	9	14.2	3.42	8 26
18.30	2	14.2	3.43	6 27
17.98	2	14.2	3.43	7 40
18.26	2	14.2	3.43	3 53
16.85	3	14.2	3.43	59 44
17.34	1	14.3	3.44	55 22
18.32	1	14.3	3.45	8 06
18.32	1	14.4	3.48	57 16
18.06	2	14.4	3.48	3 27
17.94	2	14.4	3.48	2 37
14.88	12	14.4	3.48	5 46
16.12	7	14.5	3.49	55 27
18.37	1	14.5	3.49	57 34
18.32	1	14.6	3.53	56 52
17.42	3	14.7	3.54	6 08
16.91w	2	14.7	3.56	9 56

25 prec. + $68\overset{s}{.}2$, $-\,2'\,42''$

701—760			
Mag.	α 15^{m}	x	y−60′ y
	s	′	′ ″
18.10 1	14.8	3.57	4 50
17.79 3	14.8	3.58	0 05
18.37 1	14.8	3.58	57 27
16.44 9	14.9	3.59	4 11
17.56 2	14.9	3.60	9 18
17.05 3	14.9	3.60	6 02
16.57 7	15.0	3.62	3 56
13.88 12	15.0	3.63	4 37
17.86 2	15.1	3.66	9 05
15.08 10	15.1	3.66	6 29
17.02 3	15.2	3.68	1 36
18.48 1	15.3	3.70	8 56
18.48 1	15.4	3.72	1 25
18.37 1	15.4	3.72	59 17
16.00 9	15.4	3.73	58 23
17.58 1	15.4	3.73	0 10
18.21 1	15.5	3.74	58 18
16.66 3	15.5	3.74	55 01
18.27 1	15.5	3.76	55 13
16.86 5	15.5	3.76	5 39
13.38 14	15.6	3.77	57 08
13.27 15	15.7	3.79	0 15
18.27 1	15.7	3.81	0 03
18.37 1	15.8	3.82	2 45
17.74 2	15.8	3.82	7 06
16.02 9	15.8	3.83	8 36
11.90w 10	15.9	3.84	55 19
14.63 12	15.9	3.84	4 03
16.43 8	15.9	3.86	0 42
18.54 1	16.0	3.87	3 28
17.94 2	16.0	3.88	2 13
17.82 3	16.1	3.89	58 50
18.32 2	16.1	3.90	57 08
18.43 1	16.2	3.91	5 21
18.20 2	16.2	3.91	6 49
15.73 9	16.3	3.94	8 42
18.32 1	16.3	3.95	0 20
18.32 1	16.4	3.96	57 56
17.88 3	16.6	3.99	0 09
18.04 3	16.6	4.01	2 02
15.21 10	16.7	4.02	55 02
17.44 2	16.8	4.04	9 05
18.08 2	16.8	4.04	6 41
18.00 2	16.8	4.04	5 49
18.54 1	16.8	4.05	7 03
15.35 9	16.8	4.05	3 00
18.11 2	16.8	4.06	59 32
16.49 7	16.9	4.08	57 45
12.18 14	16.9	4.08	8 26
15.22 10	17.0	4.09	57 25
18.48 1	17.0	4.09	2 31
16.48 5	17.0	4.10	57 06
18.59 1	17.0	4.11	6 08
18.44 2	17.0	4.11	9 26
18.06 3	17.1	4.12	55 16
13.95 12	17.1	4.13	0 17
18.43 1	17.2	4.14	0 02
16.61 3	17.2	4.14	59 43
17.06 2	17.2	4.14	58 23
18.32 1	17.3	4.17	8 42

761—820			
Mag.	α 15^{m}	x	y−60′ y
	s	′	′ ″
14.91 10	17.4	4.19	56 13
14.05 14	17.4	4.21	3 57
17.74 2	17.5	4.23	6 33
16.55 9	17.6	4.25	6 44
16.31 7	17.6	4.26	9 28
17.80 2	17.6	4.26	7 44
16.27 9	17.7	4.27	4 54
18.27 1	17.7	4.28	1 01
18.48 1	17.8	4.29	1 07
15.94 7	17.8	4.30	0 33
17.37 3	17.8	4.31	1 23
17.40 3	17.9	4.32	0 15
17.21 3	17.9	4.33	2 30
14.99 9	18.0	4.34	0 31
17.70 3	18.0	4.35	56 24
17.21 3	18.1	4.37	3 24
18.05 1	18.1	4.37	1 06
17.64 3	18.1	4.38	59 11
17.57 3	18.2	4.40	5 08
12.76 14	18.2	4.41	55 16
18.03 2	18.2	4.41	5 52
17.40 3	18.3	4.43	6 09
17.45 3	18.4	4.44	2 42
17.80 2	18.4	4.46	59 54
16.72 8	18.5	4.48	5 13
16.63 5	18.6	4.49	3 26
15.22 9	18.6	4.50	7 26
17.86 2	18.7	4.53	9 06
16.60 5	18.8	4.54	57 55
14.87 11	18.8	4.56	6 57
18.03 3	18.9	4.58	7 14
17.74 2	19.0	4.59	58 33
18.48 1	19.0	4.60	2 37
18.59 1	19.1	4.62	5 02
17.91 3	19.2	4.65	57 12
17.84 3	19.3	4.66	4 17
15.37 9	19.4	4.68	0 59
17.33 3	19.4	4.68	0 31
18.08 2	19.4	4.68	57 55
15.56 10	19.5	4.69	55 12
17.10 3	19.5	4.70	1 38
16.02 9	19.7	4.75	8 00
16.48 9	19.7	4.75	6 58
18.43 1	19.7	4.76	0 29
18.18 3	19.8	4.77	5 32
15.01 10	19.8	4.78	56 06
14.10 13	19.9	4.79	7 56
18.05 1	19.9	4.79	7 33
16.03 9	19.9	4.80	55 37
18.06 2	19.9	4.80	4 59
18.43 1	19.9	4.80	2 27
18.48 1	20.0	4.82	9 55
15.40 9	20.0	4.83	1 36
17.98 2	20.1	4.85	2 28
17.70 2	20.2	4.86	9 36
17.76 3	20.2	4.87	59 36
17.66 3	20.3	4.89	1 03
17.17 3	20.3	4.90	4 40
16.88 3	20.3	4.90	1 45
15.81 8	20.3	4.91	9 57

821—880			
Mag.	α 15^{m}	x	y−60′ y
	s	′	′ ″
16.44 7	20.5	4.96	57 46
18.10 1	20.6	4.97	5 54
18.48 1	20.6	4.98	6 53
16.13 9	20.6	4.98	0 18
18.54 1	20.7	5.00	7 03
16.46 9	20.7	5.01	6 28
16.92 3	20.8	5.02	7 28
15.55 10	20.9	5.05	55 58
14.81 11	20.9	5.06	4 28
18.04 3	20.9	5.06	4 05
16.63 8	21.0	5.08	3 07
17.39 3	21.0	5.08	2 02
18.37 1	21.0	5.08	59 59
17.69 2	21.1	5.09	6 44
15.97 9	21.1	5.09	59 17
16.19 8	21.1	5.10	59 39
18.54 1	21.1	5.11	6 14
16.30 6	21.2	5.12	1 16
12.07w 15	21.4	5.17	8 13
17.09 3	21.5	5.19	57 59
18.10 1	21.5	5.21	57 23
14.47 12	21.6	5.22	59 46
14.72 10	21.6	5.22	0 10
18.20 2	21.6	5.22	5 27
14.13 13	21.7	5.25	58 57
17.14 3	21.8	5.28	55 36
15.98 9	21.9	5.30	59 11
18.54 1	22.0	5.32	4 57
16.18 9	22.2	5.36	57 57
17.08 3	22.3	5.38	55 01
17.43 3	22.3	5.38	0 56
18.37 1	22.4	5.39	5 25
16.85 3	22.4	5.39	56 18
17.11 3	22.4	5.40	55 26
18.11 2	22.5	5.42	5 59
15.01 11	22.5	5.43	56 52
17.77 2	22.6	5.45	2 46
18.43 1	22.6	5.46	9 37
17.15 1	22.6	5.46	3 51
14.62 12	22.6	5.46	4 34
18.37 1	22.7	5.47	3 45
18.32 1	22.7	5.47	56 13
18.40 2	22.7	5.47	58 13
18.00 2	22.7	5.48	0 58
16.89 3	22.7	5.48	6 39
17.84 2	22.8	5.50	9 32
18.14 2	22.8	5.50	59 52
18.21 1	22.9	5.53	58 21
17.82 3	23.2	5.59	55 50
17.79 3	23.2	5.59	4 15
18.27 1	23.2	5.61	57 22
14.04 13	23.2	5.61	7 46
17.05 3	23.3	5.63	4 15
17.76 2	23.4	5.66	9 27
16.49 8	23.5	5.67	6 49
16.61 6	23.7	5.73	1 09
17.98 2	23.8	5.74	4 33
18.20 2	23.8	5.75	55 49
17.06 3	24.0	5.79	0 26
17.69 3	24.0	5.79	4 53

881—940			
Mag.	α 15^{m}	x	y−60′ y
	s	′	′ ″
17.39 3	24.0	5.80	2 32
15.53 10	24.0	5.80	55 28
16.30 9	24.0	5.80	57 01
18.54 1	24.0	5.81	5 22
16.78 3	24.1	5.82	4 02
16.46 6	24.2	5.84	55 41
17.74 3	24.2	5.85	57 30
16.87 2	24.2	5.85	56 49
18.16 1	24.2	5.85	56 56
15.27 9	24.2	5.86	7 41
16.80 3	24.3	5.87	9 01
17.14 3	24.4	5.90	5 34
17.43 2	24.4	5.90	58 33
17.03 2	24.4	5.90	4 30
14.04 14	24.5	5.93	3 07
18.32 1	24.6	5.94	56 39
16.52 7	24.6	5.95	0 17
16.53 7	24.6	5.95	7 26
16.52 7	24.6	5.96	6 18
18.32 1	24.6	5.96	55 32
18.11 2	24.6	5.96	58 33
17.29 3	24.7	5.97	55 23
16.02 9	24.7	5.98	59 30
17.15 3	24.7	5.98	9 38
11.41w 13	24.8	6.00	3 47
18.54 1	24.8	6.01	5 01
18.54 1	24.9	6.02	5 24
17.71 2	24.9	6.02	4 50
16.03 9	24.9	6.02	56 27
18.48 1	25.0	6.04	3 06
14.60 12	25.0	6.04	0 02
16.11 9	25.0	6.04	2 54
16.24 9	25.0	6.05	58 47
16.59 5	25.1	6.06	56 50
17.35 3	25.1	6.06	1 17
17.86 2	25.2	6.07	1 48
16.50 8	25.2	6.07	5 40
17.57 3	25.2	6.07	55 10
18.27 1	25.2	6.08	0 27
16.27 9	25.3	6.09	59 55
18.09 3	25.5	6.14	6 33
17.68 3	25.5	6.15	55 38
16.84 3	25.5	6.16	7 19
14.61 11	25.7	6.20	55 57
17.89 3	25.7	6.21	58 42
17.78 2	25.7	6.21	1 27
18.37 1	25.8	6.23	58 10
17.55 3	25.9	6.24	55 33
16.84 2	25.9	6.26	8 59
17.83 2	26.0	6.28	8 07
16.93 3	26.0	6.28	3 39
12.90 17	26.1	6.29	2 43
16.28 9	26.1	6.30	1 33
14.38 12	26.1	6.31	2 04
15.74 10	26.1	6.31	57 08
16.29 8	26.2	6.33	58 36
17.24 3	26.2	6.33	8 40
17.81 3	26.3	6.34	7 36
17.34 3	26.3	6.35	57 03
17.14 3	26.3	6.36	58 04

941—1000			
Mag.	α 15^{m}	x	y−60′ y
	s	′	′ ″
15.71 9	26.4	6.37	56 05
17.54 3	26.4	6.38	8 28
18.37 1	26.5	6.40	0 41
18.21 1	26.5	6.40	59 21
16.27 8	26.6	6.43	56 58
17.24 3	26.6	6.43	4 59
16.89 1	26.7	6.46	4 50
14.20 11	26.7	6.46	3 53
17.76 3	26.7	6.46	56 45
17.70 2	26.8	6.48	59 22
16.93 3	26.9	6.49	57 08
16.94 3	26.9	6.49	0 43
17.87 2	26.9	6.52	56 59
16.67 4	27.1	6.54	56 34
17.44 3	27.1	6.55	59 48
17.66 3	27.1	6.56	6 32
17.38 3	27.2	6.57	8 41
16.89 3	27.2	6.58	6 11
15.96 9	27.3	6.59	59 20
17.11 3	27.3	6.59	3 26
18.06 2	27.3	6.59	3 57
17.30 3	27.3	6.60	3 15
17.36 3	27.3	6.60	1 25
16.64 5	27.3	6.60	6 59
17.29 3	27.3	6.60	9 32
16.22 4	27.4	6.62	55 59
17.02 3	27.4	6.62	4 13
14.96 11	27.4	6.62	1 33
16.54 6	27.5	6.64	58 26
17.92 2	27.5	6.65	2 28
17.15 3	27.5	6.65	6 08
13.89 13	27.5	6.66	2 00
16.09 9	27.6	6.67	56 17
16.05 9	27.6	6.67	3 42
15.84 9	27.7	6.69	8 59
17.31 3	27.7	6.70	2 59
18.43 1	27.7	6.71	4 46
18.43 1	28.0	6.75	9 41
15.39 10	28.0	6.77	58 30
16.91 3	28.1	6.78	59 45
18.43 1	28.1	6.78	9 25
16.95 1	28.2	6.79	2 02
17.74 3	28.2	6.81	1 07
18.48 1	28.3	6.83	6 28
17.58 2	28.4	6.85	56 49
18.43 1	28.5	6.88	1 15
16.83 3	28.5	6.88	7 58
16.86 3	28.6	6.89	8 04
18.43 1	28.6	6.89	9 44
15.85 9	28.6	6.89	4 45
18.05 1	28.6	6.90	2 14
18.37 1	28.6	6.90	58 44
17.18 3	28.6	6.91	57 13
18.48 1	28.6	6.91	3 31
17.83 2	28.6	6.91	3 40
18.27 1	28.6	6.91	9 09
17.90 2	28.8	6.95	8 38
17.02 3	28.8	6.96	59 40
18.32 2	29.0	6.99	59 38
16.15 9	29.0	6.99	58 59

25 prec. + 68$^{\mathrm{s}}$.2, − 2′ 42″

1001—1060				
Mag.		α 15^m	x	$y-60'$ / y
		s	′	′ ″
17.66	3	29.0	7.00	55 25
16.24	9	29.0	7.00	8 22
17.65	3	29.0	7.01	7 05
16.56	5	29.1	7.02	7 00
16.36	9	29.1	7.02	1 10
15.97	9	29.1	7.02	0 27
18.32	1	29.1	7.03	59 52
17.76	2	29.1	7.03	9 41
15.72	9	29.3	7.07	59 48
17.06	3	29.4	7.10	5 57
16.09	9	29.4	7.11	2 43
16.97	3	29.4	7.11	3 12
17.20	3	29.5	7.13	0 41
18.32	1	29.5	7.13	56 11
18.00	2	29.7	7.17	9 10
18.21	1	29.7	7.18	4 02
16.68	3	29.7	7.18	9 11
16.36	7	29.8	7.19	58 12
17.79	2	29.8	7.20	59 35
17.83	3	29.8	7.20	9 42
13.19	16	29.8	7.20	8 38
17.97	2	29.8	7.21	6 39
15.87	9	29.8	7.21	7 44
14.76	12	29.9	7.22	3 24
17.33	3	29.9	7.22	2 23
18.27	1	30.0	7.24	1 50
14.54	12	30.1	7.27	7 36
18.43	1	30.1	7.27	9 03
16.45	6	30.1	7.27	58 03
18.32	1	30.2	7.29	55 53
18.21	1	30.2	7.31	7 28
17.68	2	30.3	7.32	8 03
18.32	1	30.3	7.33	3 17
18.32	1	30.3	7.33	59 16
17.64	2	30.4	7.35	58 26
14.46	13	30.5	7.37	5 08
17.42	2	30.5	7.37	9 50
18.27	1	30.5	7.37	5 33
16.50	6	30.5	7.38	5 49
14.25	12	30.6	7.39	4 49
15.51	9	30.6	7.39	0 11
17.30	3	30.6	7.39	58 47
16.35	4	30.6	7.40	7 46
17.39	3	30.7	7.42	1 55
12.82	16	30.7	7.43	3 32
16.25	8	30.8	7.44	8 55
17.14	3	30.8	7.44	56 23
16.98	2	30.8	7.45	7 45
16.84	3	30.8	7.45	3 24
17.90	3	30.9	7.46	5 32
16.38	5	31.0	7.47	55 59
13.57	15	31.0	7.48	59 13
18.48	1	31.1	7.50	6 42
16.65	3	31.1	7.51	3 56
17.74	2	31.2	7.52	9 15
17.04	3	31.2	7.52	5 38
17.61	3	31.3	7.55	57 58
17.20	3	31.5	7.60	4 55
16.68	3	31.5	7.61	8 13
14.99	10	31.7	7.64	4 49

1061—1120				
Mag.		α 15^m	x	$y-60'$ / y
		s	′	′ ″
17.52	3	31.7	7.64	55 43
16.02	9	31.7	7.65	58 01
17.66	3	31.7	7.65	56 59
16.18	9	31.7	7.66	0 13
17.37	3	31.8	7.67	6 40
15.10	9	31.8	7.68	6 58
17.02	3	31.8	7.68	55 30
18.22	2	31.8	7.68	4 33
17.41	3	31.9	7.69	59 34
16.92	3	31.9	7.70	8 45
15.50	9	32.0	7.73	1 45
18.37	1	32.2	7.77	0 40
17.71	2	32.3	7.79	0 21
18.10	1	32.3	7.81	0 01
16.08	9	32.3	7.81	9 02
17.93	2	32.5	7.84	7 42
16.78	3	32.6	7.87	58 32
18.37	1	32.6	7.88	0 03
12.30	14	32.7	7.89	56 50
17.85	3	32.7	7.89	6 15
15.88	9	32.7	7.90	1 36
15.11	11	32.8	7.92	57 22
18.21	1	32.8	7.93	0 11
18.00	3	32.9	7.94	4 29
16.71	5	32.9	7.94	5 46
17.45	3	33.0	7.98	7 33
16.96	3	33.1	8.01	9 32
17.00	3	33.2	8.02	2 02
14.68	11	33.2	8.03	59 08
15.25	10	33.2	8.03	55 59
16.92	3	33.2	8.03	55 02
16.81	3	33.3	8.04	2 56
14.75	12	33.3	8.06	3 16
16.81	3	33.4	8.08	5 44
16.26	8	33.5	8.09	56 50
17.09	1	33.5	8.09	4 48
15.81	9	33.5	8.10	6 25
18.43	1	33.6	8.11	2 00
16.17	9	33.6	8.12	58 53
18.43	1	33.6	8.13	7 46
17.66	2	33.7	8.15	59 24
18.43	1	33.8	8.17	3 57
16.91	3	33.9	8.20	8 10
18.05	2	33.9	8.20	55 59
15.34	10	33.9	8.20	57 18
18.27	1	34.0	8.23	55 51
14.97	11	34.1	8.24	0 56
17.48	2	34.1	8.25	5 10
17.80	3	34.2	8.25	3 45
17.01	3	34.3	8.28	58 07
17.55	3	34.4	8.30	58 17
14.55	11	34.4	8.31	4 38
17.18	3	34.4	8.31	7 08
16.83	3	34.5	8.32	59 37
16.17	9	34.5	8.32	55 01
16.07	9	34.6	8.34	58 57
17.16	2	34.6	8.35	9 30
16.23	8	34.7	8.37	55 54
17.70	2	34.8	8.40	1 33
16.95	3	34.9	8.42	7 12

1121—1180				
Mag.		α 15^m	x	$y-60'$ / y
		s	′	′ ″
17.21	3	35.0	8.44	8 10
17.34	2	35.0	8.46	3 17
17.66	2	35.2	8.49	0 24
16.84	3	35.2	8.50	6 37
18.30	2	35.3	8.53	56 57
17.88	3	35.3	8.53	58 18
16.87	3	35.3	8.53	0 45
17.69	3	35.4	8.56	55 34
18.17	2	35.5	8.57	57 30
17.81	3	35.5	8.57	3 08
16.84	3	35.5	8.58	58 34
18.27	1	35.6	8.61	58 48
17.88	1	35.6	8.61	57 19
18.32	1	35.6	8.61	57 59
18.04	2	35.7	8.62	0 48
14.63	10	35.8	8.66	56 15
17.52	1	35.9	8.67	0 54
17.72	2	35.9	8.67	1 52
16.40w	4	36	8.7	57 12
16.37	7	36.0	8.70	58 21
12.51	14	36.0	8.71	57 40
18.37	1	36.0	8.71	9 38
17.10	3	36.0	8.71	8 42
17.75	3	36.1	8.72	4 12
15.37	10	36.3	8.77	9 57
17.45	3	36.4	8.79	4 53
16.13	9	36.4	8.79	0 21
16.46	7	36.4	8.81	0 27
17.41	3	36.4	8.81	1 48
17.05	3	36.5	8.83	1 54
17.52	1	36.5	8.83	9 28
17.09	1	36.5	8.83	57 32
17.88	3	36.6	8.86	9 54
15.96	8	36.8	8.89	2 51
16.51	7	36.8	8.90	2 45
17.12	3	36.8	8.90	3 50
17.13	3	36.9	8.91	56 05
17.36	3	36.9	8.92	7 03
16.86	3	37.0	8.93	7 43
18.43	1	37.0	8.95	6 04
17.99	1	37.1	8.96	2 21
16.90	3	37.2	8.98	3 46
16.11	9	37.3	8.99	58 09
16.20	8	37.3	8.99	55 29
15.96	10	37.4	9.03	7 54
15.47	9	37.5	9.04	7 44
16.75	3	37.5	9.06	8 53
15.72	10	37.6	9.08	9 14
14.86	9	37.6	9.08	55 26
18.43	1	37.7	9.09	4 47
11.07w	8	37.7	9.10	58 47
16.40	7	37.7	9.11	5 46
18.43	1	37.8	9.12	6 33
12.55	15	38.1	9.19	1 03
15.61	9	38.1	9.19	1 30
18.21	1	38.1	9.20	55 16
18.37	1	38.3	9.24	7 03
17.78	3	38.3	9.26	4 35
17.77	3	38.4	9.27	9 25
17.74	2	38.4	9.28	8 19

1181—1240				
Mag.		α 15^m	x	$y-60'$ / y
		s	′	′ ″
17.89	3	38.5	9.29	58 48
17.32	3	38.6	9.33	59 49
17.72	2	38.7	9.34	59 44
14.87	11	38.7	9.34	57 30
16.85	3	38.7	9.35	5 42
18.37	1	38.7	9.36	8 41
17.22	3	38.7	9.36	9 27
16.78	3	38.8	9.38	4 29
18.32	1	38.9	9.40	58 33
17.82	2	38.9	9.41	58 21
17.43	3	39.0	9.42	3 01
17.94	1	39.1	9.44	59 50
16.65	3	39.1	9.44	57 18
17.29	3	39.1	9.45	1 20
14.96	10	39.1	9.45	9 59
18.24	2	39.1	9.46	56 40
16.92	3	39.1	9.46	56 09
17.75	3	39.2	9.47	6 34
15.72	5	39.3	9.50	58 50
17.09	3	39.4	9.52	6 1′2
18.39	2	39.4	9.53	6 57
18.21	1	39.5	9.55	55 10
17.49	3	39.5	9.56	7 26
16.77	3	39.5	9.56	9 29
17.77d	1	39.6	9.58	0 09
18.27	1	39.7	9.59	56 13
17.99	2	39.7	9.60	56 54
16.64	3	39.8	9.62	3 35
17.74	3	39.8	9.62	0 55
16.92	3	39.8	9.63	57 58
17.88d	1	39.8	9.63	7 50
16.61	3	40.0	9.65	3 18
17.39	3	40.0	9.66	1 21
17.12	3	40.0	9.67	5 17
16.99	3	40.0	9.67	5 50
17.38	3	40.2	9.71	59 24
15.74	10	40.3	9.72	59 42
18.41	2	40.5	9.77	8 02
16.78	3	40.5	9.78	9 03
16.65	3	40.5	9.78	8 33
17.12	3	40.5	9.78	3 22
15.00	11	40.5	9.78	0 48
17.70	3	40.5	9.78	58 34
16.08	9	40.6	9.79	58 28
18.37	1	40.6	9.79	1 35
17.13	3	40.6	9.80	2 06
17.03	3	40.6	9.80	58 36
14.19	12	40.6	9.81	8 24
17.82	3	40.6	9.81	2 25
18.37	1	40.7	9.82	7 50
16.41	8	40.7	9.82	2 03
14.50	12	40.8	9.84	6 46
17.81	3	40.8	9.85	0 56
13.36	15	40.8	9.86	2 17
18.21	1	40.9	9.87	0 44
18.27	1	40.9	9.87	57 35
15.52	10	40.9	9.88	2 50
17.74	3	41.0	9.90	58 40
18.32	1	41.0	9.91	5 40
17.15	3	41.2	9.95	3 45

1241—1291				
Mag.		α 15^m	x	$y-60'$ / y
		s	′	′ ″
17.73	3	41.4	10.00	5 45
18.21	1	41.4	10.00	55 03
17.73	3	41.4	10.01	3 52
17.07	3	41.5	10.02	56 59
17.72	2	41.6	10.04	9 06
17.72	3	41.6	10.04	4 37
16.22	9	41.7	10.08	2 43
14.36	2	41.7	10.08	55 54
17.13	3	41.7	10.08	56 31
15.65	10	41.8	10.10	7 29
15.18	9	41.8	10.10	6 37
18.37	1	41.9	10.12	7 52
14.72	11	41.9	10.12	9 54
16.23	7	41.9	10.12	1 05
17.23	3	41.9	10.13	57 28
18.37	1	42.0	10.15	4 47
16.77	3	42.0	10.15	2 45
17.67	2	42.0	10.16	8 18
16.95	1	42.1	10.17	55 33
18.14	2	42.1	10.17	0 37
18.37	1	42.1	10.18	0 56
17.45	3	42.2	10.19	2 10
18.21	1	42.2	10.19	4 27
16.84	3	42.2	10.21	9 59
17.77	1	42.3	10.22	59 33
17.70	3	42.3	10.22	2 52
18.37	1	42.4	10.24	8 10
17.48	3	42.4	10.25	0 10
12.82	16	42.4	10.26	7 51
17.71	3	42.5	10.28	56 47
17.45	3	42.5	10.28	57 23
16.24	7	42.6	10.31	7 16
17.37	2	42.6	10.31	7 20
15.05	10	42.7	10.32	57 06
15.97	9	42.7	10.32	59 50
17.92	3	42.7	10.33	9 40
16.27	6	42.8	10.34	7 46
16.39	7	43.0	10.38	59 54
17.73	3	43.1	10.39	7 04
17.43	3	43.1	10.40	9 11
17.40	3	43.3	10.44	5 14
14.03	12	43.3	10.45	7 59
18.37	1	43.3	10.45	4 09
17.52	3	43.3	10.46	57 21
17.28	3	43.4	10.48	58 09
18.30	2	43.5	10.50	0 53
17.95	3	43.5	10.50	4 03
18.37	1	43.7	10.54	3 09
18.16	1	43.7	10.54	0 32
18.27	1	43.7	10.54	55 53
16.24	8	43.7	10.55	9 02

25 prec. + 68ˢ.2, − 2′ 43″

1s—60s					61s—120s					121s—180s					181s—240s					241s—300s				
Mag.		α 14^m	x	$y-60'$ y	Mag.		α 14^m	x	$y-60'$ y	Mag.		α 14^m	x	$y-60'$ y	Mag.		α 14^m	x	$y-60'$ y	Mag.		α 15^m	x	$y-60'$ y
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
17.27	2	27	92.1	2.7	17.14	2	36	94.3	2.6	17.49	2	42	95.5	57.0	17.19	2	58	99.4	14.8	16.43	4	10	2.3	54.2
14.36	10	28	92.2	3.0	16.17	5	36	94.3	3.8	16.61	2	42	95.5	4.7	14.23	10	58	99.5	10.4	15.23	8	10	2.3	11.0
17.49	2	28	92.2	3.8	15.72	7	37	94.4	0.3	14.54	9	42	95.7	10.2	16.87	2	59	99.6	10.6	16.21	7	10	2.3	11.1
14.78	8	29	92.4	2.5	17.13	2	37	94.4	1.7	17.08	2	44	96.0	11.2	17.69	2	58	99.6	11.2	16.34	6	10	2.3	12.4
17.19	2	29	92.4	3.4	16.23	7	37	94.4	4.8	16.18	7	44	96.0	11.4	17.20	2	58	99.6	11.6	15.15	7	11	2.6	10.6
16.24	6	29	92.4	6.6	17.57	2	37	94.4	10.8	17.29	2	45	96.4	13.2	16.86	2	59	99.7	11.4	16.81	2	11	2.6	10.9
17.63	2	29	92.5	4.4	16.81	2	37	94.5	9.2	13.89	12	46	96.7	10.4	17.07	2	59	99.7	11.8	15.53	6	11	2.6	11.4
17.65	2	29	92.6	1.6	15.95	7	38	94.6	58.9	17.43	2	47	96.8	10.2	17.74	2	59	99.7	12.4	14.71	9	11	2.7	12.6
13.09	11	30	92.7	4.4	17.03	2	38	94.6	59.2	15.40	8	47	96.8	10.7	14.86	9	59	99.7	14.2	17.63	2	11	2.7	15.0
15.89	7	30	92.7	6.4	16.15	7	38	94.6	1.6	13.08	12	47	96.8	13.2	16.35	6	59	99.8	12.2	16.35	6	12	2.8	11.6
17.71	2	30	92.8	0.4	14.76	9	38	94.6	1.7	16.93	2	48	97.0	10.1	17.53	2	59	99.8	13.8	14.83	9	12	2.8	12.6
14.84	9	30	92.8	3.6	14.50	10	38	94.6	2.2	15.38	7	48	97.0	12.2	16.35	6	60	99.9	12.3	17.25	2	12	2.8	13.1
13.39	12	30	92.8	3.7	14.89	5	38	94.6	5.5	17.45	2	48	97.0	13.0	17.55	2	60	0.0	54.9	14.47	11	12	2.9	54.4
13.98	10	30	92.8	4.0	17.71	2	38	94.6	11.2	17.49	2	48	97.0	13.4	15.51	8	60	0.0	12.7	17.31	2	12	2.9	15.5
16.06	7	30	92.8	6.4	16.76	2	38	94.7	7.0	15.76	7	48	97.1	13.8	12.17	11	60	0.0	14.2	16.55	6	12	3.0	10.2
17.57	2	31	92.9	3.6	16.21	7	38	94.8	1.0	17.39	2	49	97.2	10.2	16.15	7	60	0.1	13.2	17.11	2	13	3.0	12.1
15.93	7	31	93.0	59.8	16.18	6	38	94.8	4.4	17.66	2	48	97.2	10.4	16.24	7	61	0.2	54.2	14.15	11	13	3.0	13.4
16.15	7	31	93.0	2.2	17.25	2	38	94.8	4.8	17.56	2	49	97.2	12.8	14.24	12	61	0.2	55.0	16.30	6	12	3.0	13.7
17.05	2	31	93.0	6.8	16.21	7	38	94.8	8.3	17.23	2	49	97.4	10.2	16.83	2	61	0.2	11.6	17.62	2	13	3.0	13.8
16.05	7	31	93.1	0.0	17.45	2	38	94.8	10.4	15.92	7	49	97.4	13.4	17.60	2	61	0.2	14.1	16.15	7	13	3.0	14.4
16.13	7	31	93.1	1.4	17.05	2	39	94.8	10.6	16.19	7	50	97.5	11.8	16.93	2	62	0.4	10.6	14.44	11	13	3.2	12.6
16.13	7	31	93.1	6.0	17.26	2	39	94.9	57.7	16.82	2	50	97.6	12.0	16.95	2	62	0.4	11.0	17.65	2	13	3.2	14.0
17.71	2	31	93.1	8.8	15.63	8	39	94.9	58.1	15.75	7	50	97.6	13.6	15.79	7	62	0.4	12.3	16.28	4	14	3.3	12.6
17.25	2	32	93.2	1.3	17.27	2	39	94.9	59.8	16.81	2	50	97.7	10.7	15.86	7	63	0.7	12.8	16.55	2	14	3.4	53.8
17.49	2	32	93.2	2.0	16.24	7	39	94.9	0.4	17.72	2	50	97.7	11.2	16.27	6	63	0.7	14.8	13.30	14	14	3.4	12.4
16.51	2	32	93.2	3.7	12.60	11	39	94.9	4.4	16.28	6	50	97.7	11.8	16.10	7	64	0.8	14.5	15.95	8	14	3.4	12.5
16.11	7	32	93.2	5.4	17.71	2	39	94.9	4.5	17.63	2	51	97.8	12.2	15.88	7	64	0.9	54.2	17.71	2	15	3.6	14.3
17.15	2	32	93.2	9.0	16.83	2	39	94.9	5.2	14.46	8	51	97.8	14.2	15.45	8	64	0.9	54.5	17.60	2	15	3.7	54.8
15.91	7	32	93.3	2.7	14.96	7	39	94.9	6.0	17.27	2	52	98.0	11.7	16.33	6	64	0.9	10.8	17.63	2	16	3.8	13.7
16.15	7	33	93.4	2.4	14.22	11	39	94.9	11.8	16.32	6	53	98.2	10.6	17.61	2	64	1.0	54.1	12.96	15	16	3.8	15.0
16.20	7	32	93.4	8.3	16.40	4	39	95.0	0.8	14.25	9	53	98.2	14.2	16.36	6	64	1.0	10.2	15.86	7	16	3.8	15.4
16.65	2	33	93.4	8.8	14.14	9	39	95.0	3.0	17.41	2	53	98.3	11.7	15.95	7	64	1.0	13.7	16.20	6	16	3.9	53.7
16.59	2	33	93.4	9.6	16.67	2	39	95.0	10.6	16.34	4	54	98.4	10.1	16.86	2	65	1.2	11.8	16.55	2	16	3.9	10.4
16.01	7	33	93.6	59.4	16.29	6	39	95.0	11.8	17.76	2	53	98.4	11.1	15.14	8	65	1.2	12.0	17.86	2	16	3.9	12.6
15.63	8	33	93.6	1.3	15.95	7	40	95.1	58.6	17.11	2	53	98.4	12.4	17.82	2	66	1.4	11.3	17.41	2	17	4.0	10.7
16.36	2	34	93.6	6.0	17.76	2	40	95.1	2.8	15.88	7	53	98.4	13.4	17.70	2	66	1.4	12.8	14.81	8	17	4.0	10.8
17.41	2	34	93.7	59.4	15.70	8	40	95.1	7.3	17.51	2	54	98.6	10.4	17.34	2	66	1.4	13.4	16.19	7	17	4.0	14.3
17.55	2	34	93.7	9.2	17.34	2	40	95.2	58.0	14.73	10	54	98.6	11.4	16.17	7	66	1.4	14.0	15.56	6	17	4.1	10.3
15.84	7	35	93.8	0.6	17.27	2	40	95.2	59.0	17.55	2	54	98.6	14.0	16.95	2	66	1.4	14.2	16.98	2	17	4.1	11.8
17.11	2	34	93.8	3.3	15.03	7	40	95.2	0.4	16.28	7	55	98.7	11.8	14.59	10	66	1.4	14.6	16.17	7	17	4.1	14.6
17.32	2	35	93.9	2.6	12.60	11	40	95.2	4.6	15.45	8	55	98.8	10.8	17.63	2	66	1.4	14.9	16.98	2	17	4.2	54.2
15.94	5	35	93.9	7.6	15.50	8	40	95.2	6.6	17.15	2	55	98.8	12.0	13.52	12	66	1.5	11.4	17.20	2	17	4.2	54.4
16.75	2	35	93.9	10.4	16.33	6	40	95.2	9.0	15.26	8	55	98.8	13.2	16.14	6	66	1.5	15.3	14.29	10	17	4.2	12.4
16.74	2	35	94.0	59.0	17.63	2	40	95.2	9.4	17.55	2	55	98.8	14.1	16.32	6	67	1.6	15.0	14.92	8	17	4.2	13.4
15.76	7	35	94.0	5.2	15.88	7	41	95.3	59.4	14.93	8	56	99.0	10.4	16.33	6	67	1.7	12.4	14.50	10	18	4.2	13.6
17.01	2	35	94.0	10.3	17.11	2	41	95.3	59.9	16.12	7	56	99.0	10.6	15.02	8	67	1.8	54.8	10.26	8	18	4.4	54.6
16.22	7	36	94.1	59.6	17.71	2	41	95.3	1.1	17.33	2	56	99.0	11.0	16.98	2	67	1.8	55.0	14.67	8	18	4.4	10.3
15.94	7	36	94.1	1.4	16.30	7	41	95.3	4.0	16.92	2	56	99.0	12.2	16.43	6	67	1.8	11.2	17.07	2	18	4.4	13.3
17.14	2	36	94.1	2.9	16.88	2	41	95.3	4.6	15.53	8	56	99.0	14.1	16.14	7	68	1.9	54.8	15.96	7	18	4.4	13.6
15.54	8	36	94.1	8.4	14.99	8	41	95.3	7.2	17.07	2	56	99.0	14.4	14.28	11	68	1.9	12.8	17.51	2	18	4.4	15.4
17.49	2	36	94.2	58.2	13.90	11	41	95.4	0.6	17.69	2	56	99.1	10.2	17.57	2	68	2.0	53.9	17.57	2	19	4.5	13.6
16.67	2	36	94.2	59.4	17.15	2	41	95.4	3.4	17.35	2	56	99.1	14.5	12.42	11	68	2.0	15.6	14.13	10	19	4.6	53.8
16.16	7	36	94.2	0.6	16.71	2	41	95.4	5.6	16.85	2	57	99.2	11.4	16.85	2	69	2.1	54.2	14.16	9	19	4.6	54.7
17.41	2	36	94.2	3.0	16.81	2	41	95.4	6.6	17.60	2	57	99.2	13.8	15.48	5	69	2.1	11.4	11.28	11	19	4.6	11.2
9.46	7	36	94.2	6.0	17.41	2	41	95.4	7.8	16.02	7	57	99.2	14.6	15.71	6	69	2.1	11.6	14.79	10	19	4.6	11.4
16.68	2	36	94.2	9.4	15.02	8	41	95.4	8.2	17.12	2	57	99.2	14.8	17.74	2	69	2.1	14.6	16.53	4	19	4.6	11.6
17.49	2	36	94.2	10.6	16.71	2	41	95.4	8.6	17.46	2	57	99.3	13.0	16.53	2	69	2.1	15.3	14.35	10	19	4.6	11.9
17.71	2	36	94.2	11.0	13.17	13	41	95.4	9.4	16.09	7	57	99.3	13.6	16.51	2	69	2.2	11.4	16.33	6	19	4.6	12.0
15.91	7	36	94.3	59.3	16.27	6	41	95.4	10.4	17.65	2	57	99.4	13.4	16.86	2	69	2.2	14.6	16.83	2	19	4.7	11.2
17.05	2	36	94.3	59.4	15.14	8	42	95.5	56.4	17.11	2	58	99.4	14.4	15.56	8	70	2.3	53.7	15.00	6	20	4.8	10.6

25 prec. + 68ˢ.2, − 2′ 41″

301s—360s				
Mag.		α 15^m	x	$y-60'$ y
		s	′	′
16.86	2	20	4.8	11.3
16.21	5	20	4.8	13.4
15.97	7	20	4.8	15.0
17.71	2	20	4.9	53.6
17.19	2	21	5.0	54.1
17.51	2	21	5.0	11.0
17.71	2	21	5.0	15.0
10.18	10	21	5.1	13.1
12.96	14	21	5.2	54.8
14.15	5	22	5.2	10.6
16.47	4	22	5.2	12.6
16.71	2	22	5.2	13.6
15.49	6	22	5.3	10.4
17.82	2	22	5.3	10.5
17.49	2	23	5.4	11.5
17.45	2	22	5.4	11.6
17.46	2	23	5.4	13.3
13.97	6	23	5.6	10.5
14.88	9	23	5.6	12.2
16.08	7	23	5.6	14.2
16.59	4	24	5.7	11.0
16.95	2	24	5.8	11.4
17.01	2	24	5.8	13.6
17.27	2	24	5.8	14.9
16.79	2	24	5.9	12.9
15.69	8	24	5.9	13.6
16.28	6	25	6.0	13.4
16.20	6	25	6.0	14.0
16.19	6	25	6.1	54.6
16.80	2	25	6.1	11.2
16.23	7	26	6.3	13.6
17.29	2	26	6.4	54.0
16.29	6	27	6.4	11.7
17.57	2	27	6.4	14.8
16.31	6	27	6.5	13.4
14.73	10	27	6.6	54.4
17.17	2	27	6.6	54.6
14.75	10	27	6.6	10.3
17.31	2	28	6.6	11.6
17.59	2	28	6.6	12.6
17.51	2	28	6.6	13.8
15.50	7	28	6.8	11.2
16.37	6	28	6.8	11.4
17.25	2	28	6.8	11.7
15.22	8	28	6.8	12.6
16.06	7	28	6.8	13.2
14.28	10	28	6.8	13.9
15.09	8	28	6.8	14.0
17.49	2	29	6.9	54.8
15.38	6	29	7.0	10.6
17.60	2	29	7.0	14.4
17.00	2	29	7.1	54.4
12.54	15	29	7.1	11.9
17.45	2	30	7.2	14.2
15.48	8	30	7.2	14.4
17.01	2	31	7.4	54.8
17.61	2	31	7.4	12.4
17.06	2	31	7.4	12.6
16.55	4	31	7.4	13.4
14.77	10	32	7.6	11.6

361s—420s				
Mag.		α 15^m	x	$y-60'$ y
		s	′	′
16.29	6	32	7.7	12.0
16.43	6	32	7.8	10.2
16.61	2	33	7.8	12.5
17.68	2	32	7.8	13.6
17.60	2	32	7.8	14.0
16.32	6	33	7.9	10.2
16.01	7	34	8.1	13.3
16.99	2	34	8.2	10.7
16.84	2	34	8.2	12.2
14.68	9	34	8.3	11.8
17.70	2	36	8.6	10.8
14.43	10	36	8.6	11.1
16.89	2	36	8.6	12.0
16.39	4	36	8.6	12.4
17.43	2	37	8.8	11.6
16.93	2	36	8.8	13.5
16.78	2	37	9.0	13.0
17.68	2	38	9.1	12.1
16.98	2	38	9.2	10.6
16.47	2	38	9.2	11.4
16.26	6	38	9.2	12.2
16.93	2	39	9.3	10.8
15.12	8	39	9.3	12.0
16.83	2	39	9.3	12.4
16.97	2	39	9.4	10.4
16.19	7	39	9.4	10.7
16.75	2	39	9.4	12.6
16.84	2	40	9.6	11.5
14.95	8	40	9.6	11.6
14.19	8	40	9.6	12.9
17.08	2	40	9.6	13.4
15.13	8	41	9.8	11.2
16.14	7	40	9.8	11.6
17.74	2	41	9.9	12.4
15.86	6	41	9.9	12.9
15.84	6	41	10.0	10.0
17.27	2	42	10.0	10.4
17.58	2	41	10.0	11.9
16.80	2	42	10.2	12.5
17.65	2	43	10.3	11.2
16.92	2	43	10.4	10.3
16.03	6	43	10.4	11.0
14.95	7	43	10.4	12.5
17.68	2	44	10.6	11.1
17.51	2	44	10.7	57.4
17.00	2	44	10.7	6.8
16.80	2	44	10.7	8.0
16.62	2	44	10.7	9.2
15.62	8	45	10.8	59.6
17.74	2	45	10.8	0.9
17.03	2	45	10.8	3.5
17.65	2	45	10.8	4.8
17.11	2	45	10.8	9.4
13.82	9	45	10.8	11.4
14.83	9	45	10.9	59.4
16.14	7	45	10.9	3.2
15.88	7	45	10.9	4.4
17.62	2	45	10.9	5.0
15.33	8	45	10.9	5.2
16.80	2	45	10.9	10.6

421s—480s				
Mag.		α 15^m	x	$y-60'$ y
		s	′	′
16.13	5	45	10.9	11.0
17.61	2	46	11.0	57.0
15.83	8	45	11.0	1.8
17.41	2	46	11.0	3.2
17.68	2	46	11.0	5.0
17.01	2	46	11.0	5.6
17.07	2	46	11.0	6.6
16.63	2	46	11.0	10.9
16.06	5	46	11.0	11.3
17.19	2	46	11.1	57.7
17.67	2	46	11.1	58.4
14.76	8	46	11.1	3.0
17.18	2	46	11.2	58.4
15.92	7	46	11.2	58.9
15.84	8	47	11.2	6.1
14.90	4	46	11.2	11.4
16.25	6	47	11.3	58.5
16.24	7	47	11.3	5.3
17.12	2	47	11.3	8.2
16.19	7	47	11.3	10.4
17.53	2	47	11.4	57.4
17.74	2	47	11.4	58.9
15.82	7	47	11.4	59.0
14.64	8	47	11.4	2.4
16.85	2	47	11.4	3.0
15.98	7	47	11.4	5.8
17.27	2	47	11.4	6.2
15.66	8	47	11.4	6.7
17.84	2	47	11.4	6.8
16.25	4	47	11.4	11.2
16.18	5	47	11.4	11.4
16.13	7	48	11.5	58.2
16.68	2	48	11.5	58.9
16.35	6	48	11.5	3.3
17.74	2	48	11.6	58.2
16.90	2	48	11.6	59.7
17.06	2	48	11.6	0.1
17.35	2	48	11.6	2.2
17.67	2	48	11.6	3.8
17.48	2	48	11.6	6.7
17.57	2	48	11.6	7.2
16.73	2	48	11.6	8.8
17.49	2	48	11.6	10.2
13.38	11	48	11.7	0.4
17.76	2	48	11.7	5.9
15.90	8	48	11.7	6.7
16.13	7	48	11.7	9.3
16.56	2	48	11.7	9.7
15.59	7	49	11.8	0.6
16.87	2	49	11.8	3.3
16.65	2	49	11.8	3.8
15.81	8	49	11.8	4.6
17.21	2	49	11.8	5.0
16.35	6	49	11.8	7.3
17.63	2	49	11.8	9.6
15.11	8	49	11.9	0.3
13.18	16	49	11.9	1.2
16.82	2	49	11.9	2.8
17.04	2	49	11.9	3.3
16.89	2	49	11.9	3.8

481s—540s				
Mag.		α 15^m	x	$y-60'$ y
		s	′	′
15.94	7	49	11.9	8.8
17.51	2	49	11.9	9.8
17.35	2	49	11.9	10.8
16.58	2	50	12.0	59.9
17.43	2	50	12.0	2.9
17.68	2	50	12.0	4.8
16.33	6	50	12.0	5.0
17.19	2	50	12.0	7.0
16.78	2	50	12.0	7.6
16.69	2	50	12.1	59.6
15.33	8	50	12.1	4.6
14.77	9	50	12.1	8.6
14.10	10	50	12.1	9.1
17.10	2	51	12.2	58.4
17.70	2	50	12.2	4.4
17.02	2	51	12.2	8.6
16.03	7	51	12.2	9.7
15.99	7	51	12.3	58.5
16.39	4	51	12.3	59.7
17.21	2	51	12.3	1.3
17.67	2	51	12.3	5.6
17.10	2	51	12.3	7.9
17.23	2	51	12.3	8.0
16.61	2	51	12.4	59.0
17.29	2	52	12.4	0.0
16.26	7	51	12.4	3.6
15.39	8	51	12.4	10.4
17.27	2	52	12.5	1.2
17.07	2	52	12.5	3.0
17.13	2	52	12.5	3.1
14.82	9	52	12.6	58.8
16.24	7	52	12.6	2.2
16.75	2	52	12.6	2.8
15.79	7	52	12.6	5.3
15.35	7	52	12.6	6.6
16.15	7	52	12.6	7.4
15.99	7	52	12.6	8.4
15.79	7	52	12.6	10.0
17.41	2	52	12.6	10.4
16.87	2	53	12.7	59.6
15.44	6	53	12.7	0.5
16.46	4	53	12.7	3.7
17.27	2	53	12.7	6.4
16.18	6	53	12.7	7.2
16.02	7	53	12.7	8.4
16.35	4	53	12.7	8.8
17.57	2	53	12.8	59.2
17.74	2	53	12.8	59.8
17.35	2	53	12.8	1.6
17.68	2	53	12.8	2.0
14.76	8	53	12.8	2.6
16.71	2	53	12.8	3.2
16.29	6	53	12.8	3.4
16.27	6	53	12.8	4.9
17.39	2	53	12.8	5.7
13.33	13	53	12.8	10.0
17.09	2	53	12.9	3.3
17.21	2	53	12.9	3.4
16.29	6	53	12.9	5.3
16.39	4	53	12.9	6.7

541s—568s				
Mag.		α 15^m	x	y
		s	′	′
15.25	8	54	13.0	1.6
17.16	2	54	13.0	3.9
17.25	2	54	13.0	6.5
16.17	6	54	13.1	5.6
16.91	2	54	13.1	5.7
17.71	2	54	13.1	8.4
16.24	7	55	13.2	4.6
15.85	7	55	13.2	8.2
14.11	10	55	13.2	9.0
17.68	2	55	13.3	2.0
17.21	2	55	13.3	2.7
17.17	2	55	13.3	4.9
14.85	8	55	13.4	1.5
16.22	7	55	13.4	1.6
16.21	7	56	13.4	4.9
17.09	2	56	13.4	5.4
17.55	2	56	13.4	7.8
12.65	14	56	13.5	1.1
15.35	7	57	13.6	6.1
17.55	2	57	13.6	6.3
14.80	9	56	13.6	7.8
16.16	7	56	13.6	7.9
16.23	7	57	13.7	3.9
15.89	7	57	13.7	5.4
16.13	3	57	13.8	2.3
15.10	8	57	13.8	2.4
15.00	7	57	13.8	4.3
15.53	7	57	13.8	6.3

25 prec. + 68ˢ.2, − 2′ 43″

Area 124. Center for 1900: $8^{\mathrm{h}}\ 14^{\mathrm{m}} - 15^\circ\ 10'$ $(15' \times 15')$

1—60				61—120				121—180				181—240				241—300			
Mag.	α 13ᵐ	x	y−10′	Mag.	α 13ᵐ	x	y−10′	Mag.	α 13ᵐ	x	y−10′	Mag.	α 13ᵐ	x	y−10′	Mag.	α 13ᵐ	x	y−10′
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
16.43 6	10.4	88.02	13 56	15.72 8	20.0	90.33	12 24	15.50 8	27.1	92.06	14 31	17.57 3	37.1	94.48	15 01	17.69 3	46.7	96.77	18 32
16.69 3	10.4	88.02	5 39	17.60 2	20.0	90.34	9 40	17.72 2	27.5	92.16	10 31	17.66 2	37.2	94.50	14 14	17.78 2	46.7	96.79	6 05
17.10 3	10.6	88.08	9 13	17.30 3	20.3	90.39	12 03	17.11 3	27.5	92.16	8 36	17.65 1	37.3	94.52	8 45	14.31: 1	46.8	96.80	19 40
16.98 1	10.7	88.09	19 16	16.93 3	20.4	90.42	9 12	11.82w13	27.6	92.18	18 52	16.38 6	37.3	94.53	12 34	16.97 3	46.8	96.80	13 42
17.69 3	10.9	88.16	10 40	15.78 8	20.5	90.44	9 56	16.32 8	27.8	92.23	14 20	16.67 5	37.4	94.55	12 32	16.98 3	47.1	96.87	13 05
16.38 8	11.1	88.20	6 45	17.54 2	20.6	90.47	5 01	13.70 12	28.0	92.28	11 56	17.37 3	37.5	94.58	13 49	16.32 8	47.1	96.88	17 10
16.35 6	11.1	88.20	6 11	16.90 3	20.6	90.47	16 11	17.30 2	28.1	92.30	15 12	13.88 13	38.2	94.73	15 06	17.26 3	47.4	96.95	7 06
16.48 4	11.3	88.24	8 20	14.18 1	20.6	90.48	19 54	17.48 3	28.2	92.32	19 45	17.17 3	38.3	94.74	17 47	16.59 5	47.4	96.96	19 54
16.30 8	11.5	88.27	12 41	15.91 8	20.7	90.49	5 11	15.24 8	28.4	92.39	13 17	16.83 5	38.6	94.82	12 36	17.10 3	47.5	96.97	11 30
15.05 8	11.5	88.28	10 56	17.57 3	20.7	90.51	7 42	17.01 3	28.7	92.46	10 11	16.42 8	38.7	94.85	6 35	17.81 3	47.5	96.98	16 09
16.32 8	11.6	88.30	7 14	17.54 3	20.7	90.51	13 39	15.18 8	28.8	92.48	9 26	16.74 3	38.7	94.86	6 15	15.20 8	47.5	96.98	17 02
17.58 2	12.6	88.56	12 34	16.83 3	20.9	90.55	12 50	14.58 11	29.1	92.53	15 10	16.03 7	38.7	94.86	16 14	17.49 2	47.6	96.99	16 48
16.34 8	12.7	88.57	9 11	16.94 3	20.9	90.55	17 09	16.26 7	29.2	92.56	11 29	17.82 2	38.9	94.89	10 38	15.50 8	47.6	97.00	19 02
17.81 3	13.1	88.67	15 12	11.86w14	21.0	90.58	12 15	15.31 8	29.4	92.60	12 28	17.15 3	39.0	94.92	18 53	16.48 8	47.8	97.06	5 00
15.72 6	13.2	88.71	5 38	17.65 3	21.2	90.62	16 34	17.27 3	29.6	92.64	13 26	16.28 8	39.0	94.93	5 04	16.36 8	47.9	97.07	15 48
17.80 3	13.4	88.75	14 02	17.25 3	21.7	90.74	14 40	16.84 3	29.7	92.67	5 42	14.23 11	39.2	94.98	12 19	13.88 12	48.0	97.11	8 32
15.00 1	13.5	88.77	19 20	14.58 10	21.8	90.77	18 57	15.06 8	30.0	92.74	9 04	16.86 3	39.2	94.98	17 29	16.10 8	48.2	97.14	6 54
17.52 2	13.5	88.78	10 28	14.85 11	22.1	90.86	15 23	16.22 8	30.0	92.74	17 47	16.55 6	39.3	95.01	16 00	17.75 2	48.4	97.19	5 33
17.58 2	13.7	88.83	7 28	16.64 5	22.2	90.87	10 37	15.26 8	30.4	92.85	5 45	16.52 8	39.5	95.06	9 37	17.14 3	48.8	97.29	5 15
16.81 3	13.9	88.87	7 13	17.79 3	22.2	90.88	17 45	16.46 8	30.6	92.89	14 44	14.66 9	39.6	95.07	13 04	17.62 2	48.8	97.29	11 57
15.51 9	13.9	88.88	16 58	17.16 3	22.4	90.93	18 41	17.56 2	30.6	92.90	17 43	16.50 5	39.7	95.09	18 11	17.48 3	48.8	97.29	19 41
16.15 8	14.0	88.91	6 35	15.12 8	22.5	90.96	10 51	17.53 3	30.6	92.90	9 42	16.43 7	39.8	95.13	12 43	15.82 8	49.0	97.34	6 42
17.65 3	14.1	88.93	17 20	17.64 2	22.5	90.96	13 13	15.65 8	30.9	92.97	14 26	14.31 9	40.1	95.20	9 30	17.73 3	49.0	97.34	7 39
15.95 1	14.3	88.96	20 00	17.60 2	22.6	90.98	13 38	16.78 3	31.0	93.00	9 30	15.46 8	40.2	95.23	16 12	17.81 3	49.0	97.35	12 33
17.59 2	14.5	88.99	9 16	16.39 8	22.7	91.00	5 59	14.30 11	31.1	93.02	15 38	17.27 3	40.7	95.33	15 27	13.41w12	49.0	97.36	17 45
17.55 3	14.7	89.06	5 26	17.42 3	23.0	91.05	14 05	16.73 5	31.2	93.06	11 18	17.68 2	40.8	95.36	7 35	16.64 6	49.0	97.36	5 12
16.75 3	14.7	89.06	10 08	17.78 3	23.0	91.06	5 22	13.72w10	31.6	93.16	16 26	17.64 2	40.8	95.37	14 43	16.41 7	49.2	97.39	14 09
17.48 2	14.7	89.06	5 42	14.81 9	23.1	91.07	13 02	17.68 2	31.7	93.17	11 13	16.01 8	40.9	95.38	11 35	17.51 3	49.3	97.43	13 10
16.40 6	15.2	89.17	6 41	16.37 8	23.1	91.08	10 02	15.05 8	31.7	93.17	5 00	17.22 3	41.0	95.39	16 31	17.16 3	49.4	97.44	18 26
16.38 6	15.2	89.18	8 23	17.61 3	23.3	91.12	18 40	17.64 2	31.9	93.22	6 01	17.08 3	41.3	95.47	17 52	17.18 3	49.4	97.46	13 30
16.89 3	15.3	89.21	6 11	14.43 11	23.3	91.12	9 04	17.64 2	31.9	93.22	8 56	17.31 3	41.5	95.52	17 00	16.32 6	49.5	97.47	7 22
15.22w 8	15.5	89.26	18 06	17.17 3	23.3	91.13	9 13	16.08 7	32.0	93.24	7 09	17.75 2	41.9	95.62	11 19	17.95 3	49.5	97.48	8 24
13.65w10	15.7	89.30	5 36	16.64 3	23.4	91.15	8 33	16.24 8	32.2	93.27	17 37	14.92 9	42.0	95.65	8 41	17.80 2	49.6	97.51	8 35
17.61 2	15.8	89.32	11 44	17.60 2	23.6	91.19	12 56	16.90 3	32.9	93.44	16 34	16.81 3	42.0	95.66	17 31	17.57 3	49.8	97.54	5 49
16.38 6	16.3	89.45	9 38	13.86 12	23.6	91.19	13 46	15.12 8	32.9	93.46	17 26	17.76 3	42.0	95.66	19 53	17.48 2	49.9	97.55	19 42
16.44 5	16.5	89.49	17 14	15.11 8	23.9	91.28	11 47	17.46 3	33.3	93.54	7 31	14.97 9	42.3	95.72	16 15	14.43 11	49.9	97.56	6 05
17.16 3	16.5	89.50	6 59	15.59 8	23.9	91.28	10 30	16.95 3	33.4	93.58	13 15	10.55w 9	42.5	95.77	10 29	16.05 8	49.9	97.56	11 03
16.24 8	16.7	89.55	13 31	16.83 3	24.0	91.31	16 44	16.28 8	33.5	93.60	11 03	17.71 3	42.5	95.78	7 22	17.44 3	49.9	97.56	11 35
17.54 2	17.2	89.66	10 34	17.68 3	24.0	91.31	19 27	17.40 3	33.7	93.66	17 57	16.87 5	43.3	95.98	13 29	17.72 3	50.3	97.64	8 57
17.52 2	17.2	89.66	10 26	16.84 5	24.1	91.32	11 53	16.10 8	33.8	93.68	9 57	16.23 7	43.8	96.07	7 42	17.84 3	50.4	97.67	18 30
17.11 3	17.3	89.68	10 00	16.48 6	24.2	91.34	16 08	16.41 7	34.0	93.72	18 11	17.57 3	44.1	96.16	10 59	16.07 6	50.4	97.68	11 52
15.02 9	17.5	89.72	13 28	17.16 3	24.3	91.38	12 59	17.28 2	34.0	93.73	18 39	14.60 10	44.5	96.24	8 21	13.98 10	50.5	97.71	11 56
16.44 5	17.6	89.75	13 11	16.19 8	24.5	91.42	15 44	15.20 9	34.1	93.77	14 45	16.95 3	44.5	96.24	7 22	16.39 7	50.7	97.75	6 45
16.27 8	17.6	89.76	17 30	16.88 3	24.6	91.46	7 31	13.59w12	34.4	93.82	12 13	17.54 2	44.5	96.25	13 53	17.13 3	51.0	97.83	17 49
17.72 3	17.8	89.81	16 45	17.39 3	24.8	91.50	6 55	16.57 5	34.4	93.82	15 00	16.07 8	44.5	96.26	6 20	17.32 3	51.1	97.84	5 29
16.25 8	17.9	89.83	14 13	16.02 8	24.9	91.52	9 48	15.75 8	34.5	93.87	6 07	17.43 3	44.8	96.32	17 23	17.57 3	51.2	97.89	13 04
17.13x 1	18.0	89.84	13 14	15.89 8	24.9	91.52	15 22	16.43 8	35.3	94.02	16 27	17.68 2	44.8	96.33	16 05	17.96 3	51.3	97.91	8 50
16.78 3	18.0	89.84	16 27	17.28 3	25.0	91.55	5 11	16.93 5	35.3	94.02	10 21	16.52 6	44.9	96.34	5 25	17.07 3	51.4	97.92	6 16
16.38 6	18.0	89.86	15 07	16.17 8	25.0	91.55	7 41	16.98 3	35.8	94.15	13 48	16.33 8	44.9	96.35	6 05	17.55 3	51.4	97.92	10 41
17.41 1	18.1	89.88	19 48	17.68 2	25.2	91.59	11 52	16.66 5	35.8	94.16	17 31	15.70 8	45.1	96.39	9 20	14.92 10	51.4	97.93	15 37
16.31 8	18.4	89.96	9 46	16.33 7	25.5	91.67	11 04	16.24 8	36.0	94.19	7 42	17.44 3	45.4	96.47	14 02	17.80 3	51.5	97.96	7 03
16.16 8	18.8	90.05	14 59	17.27 3	25.5	91.67	18 44	16.40 7	36.0	94.19	9 58	16.20 8	45.5	96.49	14 50	16.69 3	51.9	98.05	19 27
17.37 3	18.8	90.05	10 38	17.83 3	25.7	91.72	6 56	16.34 8	36.3	94.28	18 31	14.37 11	45.5	96.49	16 24	17.67 3	52.0	98.08	18 11
16.31 6	19.1	90.12	12 20	16.38 8	25.7	91.72	8 54	16.78 3	36.3	94.28	15 17	15.67: 1	45.5	96.50	8 56	16.03 8	52.0	98.08	14 15
16.98 3	19.2	90.14	6 16	16.24 8	26.0	91.77	15 50	16.38 7	36.5	94.33	7 10	15.04 8	46.0	96.62	15 13	17.43 3	52.0	98.08	12 14
17.64 2	19.2	90.16	11 42	16.55 5	26.1	91.80	20 00	12.98w12	36.6	94.36	15 48	16.38 8	46.1	96.66	17 11	17.33 3	52.0	98.08	10 23
17.56: 1	19.2	90.16	10 44	17.26 3	26.2	91.82	12 31	17.57 3	36.8	94.40	5 58	17.11 3	46.2	96.67	10 58	16.35 8	52.1	98.09	16 39
17.50 2	19.3	90.17	16 22	17.09 3	26.4	91.88	19 07	13.90w12	37.0	94.44	14 39	17.09 3	46.2	96.68	19 09	17.24 3	52.2	98.12	13 15
17.67 3	19.5	90.22	18 08	15.08 8	26.7	91.96	12 22	14.40 11	37.1	94.47	13 12	16.46 7	46.2	96.68	6 21	13.18w12	52.2	98.12	10 14
16.07 8	19.7	90.28	19 37	16.55 7	26.9	92.01	14 41	16.40 8	37.1	94.47	15 38	15.78 8	46.6	96.76	10 43	16.44 7	52.2	98.12	16 04

25 prec. + $69^{\mathrm{s}}.3$, − 4′ 36″

301—330			
Mag.	α 13^{m}	x	$y-10'$
	s	′	′ ″
17.26 3	52.2	98.13	17 27
17.46 3	52.2	98.13	6 12
17.28 3	52.4	98.18	12 24
17.66 2	52.7	98.24	15 46
16.59 7	53.2	98.34	9 24
17.05 3	53.3	98.38	11 40
16.88 3	53.4	98.39	11 47
17.00 3	53.4	98.41	19 50
15.80 8	53.5	98.42	17 24
15.94 8	53.5	98.43	14 22
16.51 7	53.6	98.44	10 35
16.24 8	53.7	98.47	10 47
16.58 6	54.0	98.56	16 09
17.43 3	54.3	98.62	5 44
16.93 3	54.4	98.66	14 58
16.49 7	54.5	98.67	12 34
13.86 13	54.8	98.75	9 40
13.97 12	54.8	98.75	18 24
17.69 2	54.8	98.77	10 51
17.81 3	54.9	98.78	11 52
16.51 8	55.2	98.85	13 48
15.10 9	55.2	98.86	19 19
16.75 3	55.3	98.87	9 27
16.44 7	55.4	98.90	11 56
16.94 3	55.4	98.90	8 02
15.97 8	55.5	98.92	8 52
16.26 8	55.5	98.92	16 38
12.83w15	55.8	98.97	14 53
16.39 7	55.8	98.98	13 58
14.84 10	55.9	98.99	15 18

331—360			
Mag.	α 13^{m}	x	$y-10'$
	s	′	′ ″
14.95 8	55.9	99.01	13 27
15.68 4	56.1	99.04	10 14
14.01 12	56.2	99.07	11 17
17.79 1	56.7	99.20	9 25
14.82 9	56.9	99.25	8 23
17.82 2	56.9	99.26	11 22
16.46 7	57.0	99.28	9 44
14.42 10	57.2	99.32	9 36
17.66 2	57.2	99.33	15 57
16.24 7	57.3	99.36	12 27
17.50 3	57.7	99.44	12 34
10.20w 9	57.9	99.49	7 11
16.50 5	58.1	99.54	9 46
17.30 3	58.1	99.55	12 30
15.28 8	58.2	99.57	15 17
17.37 3	58.5	99.64	8 11
17.56 3	58.6	99.66	6 16
15.76 8	58.8	99.70	19 08
16.56 6	58.9	99.72	5 38
15.54 8	59.0	99.76	11 05
16.18 8	59.0	99.76	18 43
16.35 6	59.3	99.82	6 43
16.12 8	59.4	99.85	11 03
16.53 5	59.5	99.87	12 33
13.99: 1	59.6	99.89	16 53
16.00 8	59.8	99.95	5 52
16.31 8	60.2	0.06	9 21
15.37 8	60.3	0.07	12 43
16.28 8	60.7	0.18	15 09
17.56 2	60.8	0.19	17 55

361—390			
Mag.	α 14^{m}	x	$y-10'$
	s	′	′ ″
15.74 8	0.8	0.19	19 43
17.62 2	0.9	0.22	12 30
16.37 8	1.0	0.24	10 19
15.98 8	1.0	0.26	6 14
14.79 9	1.2	0.29	14 39
14.20 12	1.2	0.30	13 01
17.56 3	1.4	0.33	17 40
14.58 11	1.6	0.38	5 15
16.24 8	1.8	0.42	19 18
15.75 8	1.8	0.43	11 13
17.35 3	1.9	0.46	9 39
17.51 3	1.9	0.46	8 19
13.26w13	2.0	0.48	17 26
16.51 6	2.3	0.55	15 33
17.02 2	2.3	0.55	12 44
15.07 8	2.4	0.57	11 18
17.70 2	2.4	0.57	8 37
16.88 3	2.4	0.58	20 00
14.54 11	2.7	0.66	6 35
16.62 6	2.7	0.66	10 50
14.12 12	2.8	0.68	16 58
15.53 8	2.9	0.69	11 33
16.17 8	2.9	0.71	5 41
13.55 13	3.1	0.75	7 24
17.70 3	3.2	0.78	19 32
16.24 8	3.3	0.79	13 58
17.89 3	3.3	0.81	6 14
16.85 3	3.5	0.84	17 43
12.38w14	3.5	0.84	16 40
17.66 3	3.7	0.89	17 03

391—420			
Mag.	α 14^{m}	x	$y-10'$
	s	′	′ ″
17.47 3	4.7	1.12	5 22
16.26 8	4.8	1.16	18 16
17.15 3	5.0	1.19	13 24
15.07 9	5.1	1.22	9 15
17.75 3	5.7	1.37	10 22
17.33 3	5.8	1.40	11 06
17.71 3	6.0	1.44	6 02
17.61 3	6.0	1.46	7 33
14.90 9	6.1	1.48	10 18
17.69 3	6.4	1.56	17 55
16.27 8	6.5	1.57	14 07
17.79 3	6.6	1.59	17 20
17.31 3	6.8	1.65	9 10
16.70 3	6.9	1.68	9 24
17.51 1	7.1	1.72	19 10
16.65 1	7.4	1.78	19 51
11.63w12	7.6	1.82	11 45
16.26 8	7.7	1.85	13 00
16.36 8	7.7	1.86	14 18
13.95 11	7.8	1.87	11 36
15.28 8	8.2	1.98	13 34
16.54 6	8.2	1.98	10 50
13.86 12	8.5	2.05	18 25
16.16 8	8.6	2.07	15 01
17.59 3	8.6	2.07	10 36
12.41w15	8.6	2.07	12 39
13.96 12	8.7	2.11	15 44
12.37w14	9.1	2.20	9 34
16.85 3	9.4	2.28	14 29
16.28 8	9.7	2.34	8 40

421—446			
Mag.	α 14^{m}	x	$y-10'$
	s	′	′ ″
16.27 7	9.7	2.35	18 28
13.55w12	9.9	2.39	12 51
16.87 3	9.9	2.39	5 39
16.32 8	9.9	2.40	6 02
16.70 1	9.9	2.40	19 35
17.70 3	10.0	2.42	14 02
15.22 8	10.0	2.43	11 01
17.75 3	10.1	2.44	16 36
16.74 3	10.7	2.57	14 52
17.64 3	10.7	2.58	6 20
16.31 3	10.8	2.59	9 32
16.37 6	10.8	2.59	15 01
16.20 8	10.8	2.61	9 26
14.43 11	10.9	2.63	12 11
16.72 3	11.0	2.66	15 27
16.07 8	11.1	2.67	5 40
17.30 3	11.1	2.68	10 46
17.13 1	11.4	2.76	19 20
15.34 8	11.6	2.81	11 08
14.63 10	11.8	2.86	8 12
16.98 3	12.1	2.92	18 00
16.44 6	12.2	2.94	15 09
14.30 10	12.2	2.95	15 37
13.23w13	12.2	2.95	14 52
16.16 5	12.4	2.99	17 46
17.46 1	12.4	3.00	18 29

25 prec. + $69^{\mathrm{s}}.3$, − 4′ 37″

8h Area 124. Supplementary Stars − 15°

1s—20s			
Mag.	α 12^{m}	x	$y-10'$
	s	′	′
16.44 3	59	85.3	7.6
16.09 3	59	85.3	11.9
14.68 10	59	85.4	10.0
16.00 7	60	85.4	10.4
17.85 2	60	85.6	11.4
15.11 8	60	85.6	13.1
14.75 10	61	85.7	10.0
16.19 4	61	85.8	11.8
11.39 11	62	85.9	9.2
14.85 8	62	85.9	10.6
15.14 8	62	85.9	12.4
17.77 2	62	85.9	15.1
17.37 2	62	86.0	6.8
17.37 2	62	86.0	8.0
17.65 2	62	86.0	12.9
17.40 2	62	86.0	13.4
15.21 8	62	86.0	14.0
17.47 2	62	86.1	5.6
16.10 7	62	86.1	15.2
17.84 2	63	86.2	5.7

21s—40s			
Mag.	α 13^{m}	x	$y-10'$
	s	′	′
16.09 7	3	86.2	14.2
17.11 2	3	86.3	13.8
17.02 2	3	86.3	14.1
17.91 2	4	86.4	7.2
16.87 2	4	86.4	9.6
17.57 2	4	86.4	12.2
17.93 2	4	86.4	12.3
16.36 5	4	86.4	13.2
16.11 7	4	86.6	5.2
16.38 5	4	86.6	7.9
17.93 2	4	86.6	10.4
17.93 2	4	86.6	11.1
17.78 2	5	86.6	12.0
17.79 2	4	86.6	16.3
16.21 7	5	86.8	4.6
15.15 8	5	86.8	6.6
17.78 2	5	86.8	16.0
16.83 2	6	86.9	7.8
16.83 2	6	86.9	12.4
16.07 7	6	86.9	16.2

41s—60s			
Mag.	α 13^{m}	x	$y-10'$
	s	′	′
16.79 2	6	87.0	4.6
17.69 2	6	87.0	4.7
16.09 7	6	87.0	5.2
16.38 3	6	87.0	7.2
15.83 7	7	87.1	9.6
17.73 2	7	87.1	16.8
16.95 2	7	87.2	5.9
16.82 2	7	87.2	11.1
16.36 3	7	87.2	17.2
16.65 2	8	87.4	3.9
16.30 7	8	87.4	7.4
16.70 2	8	87.4	13.2
16.05 7	8	87.4	13.6
16.83 2	8	87.5	7.7
15.39 8	8	87.5	15.0
17.84 2	8	87.6	5.2
12.74 13	9	87.6	8.4
17.77 2	9	87.6	11.6
15.27 7	9	87.6	13.0
16.70 2	8	87.6	14.2

61s—80s			
Mag.	α 13^{m}	x	$y-10'$
	s	′	′
16.95 2	9	87.6	15.2
17.07 2	9	87.7	3.9
16.20 7	9	87.7	11.3
17.82 2	9	87.8	5.1
16.28 7	10	87.8	6.9
16.26 7	9	87.8	10.4
17.98 2	9	87.8	10.7
15.50 7	9	87.8	12.6
17.89 2	10	87.8	16.7
17.85 2	10	87.9	5.8
17.83 2	10	87.9	9.3
17.93 2	10	87.9	9.4
16.91 2	10	87.9	16.4
17.77 2	10	87.9	16.6
15.49 8	10	88.0	3.9
15.56 7	12	88.5	3.2
16.07 7	14	88.8	3.4
16.97 2	15	89.2	4.0
14.78 10	16	89.4	4.6
17.00 2	17	89.6	2.8

81s—100s			
Mag.	α 13^{m}	x	$y-10'$
	s	′	′
17.87 2	18	89.8	2.4
12.01 12	18	90.0	2.1
11.91 12	19	90.2	3.0
15.70 7	20	90.4	2.0
16.36 5	20	90.4	4.2
17.97 2	20	90.4	4.4
15.13 8	21	90.6	1.4
16.52 4	21	90.6	1.5
17.18 2	22	90.8	1.0
15.32 8	22	90.9	1.0
12.21 12	22	90.9	3.2
16.08 7	23	91.0	3.0
15.11 7	24	91.4	4.4
17.95 2	24	91.4	4.7
16.45 4	25	91.5	3.9
15.49 8	25	91.6	2.0
14.68 9	25	91.6	4.6
16.03 7	26	91.7	3.1
16.09 7	26	91.9	20.2
16.07 7	27	92.0	1.8

25 prec. + $69^{\mathrm{s}}.3$, − 4′ 36″

8^{h} Area 124. Supplementary Stars − 14°, − 15°

101*s*—140*s*				141*s*—180*s*				181*s*—220*s*				221*s*—260*s*				261*s*—296*s*			
Mag.	α 13^{m}	x	$\frac{y-70'}{y-10'}$	Mag.	α 13^{m}	x	$\frac{y-70'}{y-10'}$	Mag.	α 13^{m}	x	$y-10'$	Mag.	α 14^{m}	x	$y-10'$	Mag.	α 14^{m}	x	$y-10'$
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
12.34 13	27	92.0	2.4	17.46 2	40	95.1	1.6	17.03 2	53	98.2	3.9	15.38 7	12	3.0	10.6	17.97 2	17	4.2	11.6
17.29 2	27	92.0	4.7	16.36 7	41	95.3	2.8	15.79 7	52	98.2	4.7	17.00 2	12	3.0	10.8	14.69 9	17	4.2	15.8
17.49 2	27	92.2	1.2	14.46 10	41	95.4	4.2	16.23 7	53	98.3	3.7	16.12 7	12	3.0	12.4	15.48 8	18	4.3	6.4
17.04 2	28	92.2	20.6	14.00 10	41	95.4	20.0	17.05 2	53	98.3	4.0	16.72 2	13	3.1	6.6	17.59 2	18	4.3	6.6
16.21 7	29	92.6	0.3	16.15 7	41	95.4	20.2	15.93 7	53	98.3	4.2	15.42 7	13	3.1	10.2	15.67 7	18	4.3	7.4
17.57 2	29	92.6	1.4	16.47 3	42	95.6	3.8	15.61 7	53	98.4	3.8	16.91 2	13	3.1	15.4	15.40 7	18	4.3	14.2
16.08 7	30	92.7	4.2	15.29 8	42	95.6	20.5	16.73 2	53	98.4	20.4	15.02 3	13	3.1	17.6	15.91 7	18	4.4	7.0
14.40 9	30	92.8	0.8	16.26 7	42	95.7	20.2	17.82 2	54	98.6	2.0	15.11 8	13	3.1	18.3	16.15 7	18	4.4	16.0
14.48 10	30	92.8	1.6	16.79 2	43	95.8	59.7	17.79 2	54	98.6	20.2	17.51 2	13	3.2	4.7	14.33 10	19	4.6	5.4
17.78 2	30	92.8	2.6	17.55 2	42	95.8	1.4	16.91 2	55	98.7	20.7	17.20 2	13	3.2	8.0	17.25 2	19	4.6	8.0
15.56 7	30	92.8	4.7	16.54 3	43	95.8	4.2	17.54 2	55	98.8	4.6	16.34 7	13	3.2	11.0	16.77 2	19	4.6	9.2
15.99 7	30	92.8	20.4	17.51 2	43	96.0	1.6	16.83 2	56	99.0	2.6	17.86 2	13	3.2	13.2	17.89 2	19	4.6	13.4
15.59 7	31	92.9	0.4	17.99 2	43	96.0	3.0	14.60 10	56	99.0	4.6	13.65 12	14	3.3	7.4	15.55 8	19	4.6	13.6
16.99 2	31	92.9	2.6	16.21 7	44	96.2	0.4	16.07 7	57	99.4	0.5	17.98 2	14	3.3	7.6	16.87 2	19	4.6	16.1
17.84 2	31	93.0	1.6	16.99 2	44	96.2	20.1	17.95 2	58	99.6	4.6	15.70 7	14	3.3	14.3	16.57 3	20	4.8	10.9
14.86 9	31	93.1	21.0	17.85 2	45	96.3	0.0	16.85 2	61	0.2	2.6	17.85 2	14	3.4	4.6	16.04 7	20	4.8	14.4
15.92 7	32	93.2	0.6	16.93 2	45	96.3	4.8	17.00 2	61	0.2	4.6	16.22 7	14	3.4	8.8	16.27 5	20	4.8	15.6
16.44 6	32	93.2	3.3	17.79 2	45	96.4	59.7	14.30 9	61	0.3	1.7	15.19 7	14	3.4	11.6	17.93 2	22	5.2	11.4
17.56 2	32	93.3	4.2	17.78 2	45	96.4	0.0	17.35 2	61	0.3	4.2	17.98 2	15	3.5	10.3	17.27 2	21	5.2	12.2
17.78 2	32	93.3	20.9	16.20 7	45	96.4	0.6	17.85 2	61	0.4	1.3	16.95 2	15	3.5	15.0	17.51 2	22	5.3	7.2
17.47 2	33	93.4	2.2	15.07 8	45	96.4	0.9	17.68 2	62	0.4	2.0	13.65 12	15	3.6	3.5	17.26 2	22	5.3	9.6
12.88 11	33	93.6	1.4	17.91 2	46	96.6	1.0	17.21 2	62	0.4	2.4	17.75 2	15	3.6	6.5	16.49 4	22	5.3	13.4
17.67 2	33	93.6	1.7	15.59 7	46	96.7	3.6	16.22 7	62	0.6	1.6	16.29 7	15	3.6	8.2	16.97 2	22	5.3	15.5
16.39 7	35	93.8	4.2	17.91 2	47	96.8	1.4	17.67 2	63	0.7	20.1	17.56 2	15	3.6	12.3	17.85 2	22	5.4	8.8
16.39 6	36	94.1	3.9	17.19 2	47	96.8	2.6	14.36 9	64	0.9	3.4	16.26 7	15	3.6	14.8	17.01 2	22	5.4	13.0
16.38 4	36	94.2	1.0	16.71 2	47	97.0	1.6	16.68 2	64	1.0	2.8	15.62 8	15	3.6	15.0	16.89 2	22	5.4	13.6
15.03 8	36	94.2	1.2	17.54 2	48	97.0	20.6	17.85 2	67	1.6	1.6	13.82 11	15	3.6	17.2	17.35 2	23	5.5	9.0
17.17 2	36	94.2	1.4	16.73 2	48	97.1	20.1	17.69 2	67	1.8	2.4	11.77 11	15	3.6	17.8	15.27 8	23	5.6	6.4
18.01 2	36	94.2	3.4	16.04 7	48	97.2	0.8	16.36 5	67	1.8	3.7	16.16 7	16	3.8	13.8	17.69 2	23	5.6	6.8
15.03 9	37	94.4	0.9	16.47 7	48	97.2	4.6	17.82 2	69	2.1	2.8	17.70 2	16	3.8	15.8	16.14 7	23	5.6	7.6
15.46 8	37	94.5	0.6	17.73 2	49	97.4	20.4	16.45 3	69	2.2	2.4	16.07 7	16	3.8	16.6	17.75 2	23	5.6	8.7
14.91 9	37	94.6	59.8	16.31 4	50	97.6	0.6	15.05 8	69	2.2	3.6	17.51 2	16	3.9	13.3	15.38 8	23	5.6	14.1
15.29 7	37	94.6	1.6	16.91 2	51	97.8	1.6	17.11 2	69	2.2	4.0	17.33 2	16	3.9	14.2	16.57 2	24	5.8	9.6
17.25 2	38	94.7	20.6	15.74 7	51	97.8	2.6	17.25 2	69	2.2	4.6	17.78 2	16	3.9	16.4	16.83 2	25	6.0	12.8
14.79 9	38	94.8	20.4	16.28 6	51	97.8	3.6	17.15 2	71	2.6	4.3	16.40 4	17	4.0	15.6	14.02 10	25	6.2	10.0
14.85 8	39	95.0	59.8	17.98 2	52	98.0	2.8	17.14 2	71	2.8	4.0	16.24 5	17	4.1	5.3	16.34 5	26	6.3	11.0
17.91 2	39	95.0	2.1	16.49 3	52	98.0	3.0	17.76 2	72	3.0	3.6	17.73 2	17	4.1	9.7				
17.69 2	39	95.0	2.2	17.63 2	52	98.1	1.6	16.93 2	72	3.0	6.6	16.27 7	17	4.1	10.4				
16.23 7	39	95.0	20.4	17.84 2	52	98.1	20.7	14.74 8	72	3.0	6.8	15.80 7	17	4.1	14.2				
17.91 2	39	95.0	20,8	17.23 2	53	98.2	0.6	17.15 2	72	3.0	7.8	17.73 2	17	4.2	6.0				

25 prec. + $69^{s}.3$, − 4′ 37″

9^{h} Area 125. Center for 1900: 9^{h} 12^{m} − 15° 10′ (15′ × 15′) − 15°

1—10				11—20				21—30				31—40				41—50			
Mag.	α 11^{m}	x	$y-10'$	Mag.	α 11^{m}	x	$y-10'$	Mag.	α 11^{m}	x	$y-10'$	Mag.	α 11^{m}	x	$y-10'$	Mag.	α 12^{m}	x	$y-10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.63 2	47.8	97.06	1 45	18.27 1	49.4	97.44	11 35	17.77 3	53.2	98.35	13 40	15.70 9	57.9	99.50	14 20	18.45 1	1.1	0.27	6 40
16.68 1	47.9	97.07	14 37	15.23 2	49.8	97.54	13 46	17.42 3	53.6	98.45	13 50	15.55 9	58.4	99.62	12 59	14.70 12	1.4	0.35	4 52
16.23 9	48.4	97.20	8 45	17.58 3	50.3	97.65	11 01	15.12 10	54.8	98.75	9 00	16.18 9	59.1	99.77	5 32	18.20 1	2.6	0.62	3 03
15.93 9	48.4	97.20	13 06	18.39 1	50.5	97.69	2 21	18.33 1	55.4	98.89	2 20	17.85 3	59.5	99.87	3 05	15.44 9	2.7	0.64	6 27
18.14 1	48.4	97.21	12 56	16.25 9	50.9	97.81	2 33	14.63 11	56.4	99.13	2 40	14.56 12	59.8	99.94	3 28	16.16* 2	2.7	0.64	10 39
17.62 2	48.7	97.27	1 28	18.39 1	51.3	97.89	3 52	14.70 12	56.8	99.23	10 30	17.45 3	59.8	99.96	0 11	17.44 1	2.7	0.66	10 42
16.05 9	48.8	97.31	3 08	13.44 14	52.6	98.23	12 26	17.37 3	57.2	99.33	4 04	16.32 9	59.9	99.98	10 35	16.85 5	3.7	0.83	0 30
14.83 12	49.0	97.35	11 11	15.99 9	52.6	98.23	7 03	15.60 9	57.6	99.43	11 00	15.65 9	59.9	99.98	13 48	15.27 6	3.7	0.90	3 23
14.86 11	49.0	97.36	5 05	16.57 7	53.0	98.31	6 32	16.61 5	57.7	99.44	12 28	17.76 3	60.2	0.04	4 13	13.90 11	3.9	0.93	3 22
15.47 9	49.2	97.40	8 48	15.54 9	53.1	98.32	13 01	16.94 3	57.7	99.44	3 33	17.78 3	60.9	0.23	9 18	14.79 11	3.9	0.94	4 41

25 prec. + $70^{s}.8$, − 6′ 13″

9^h

Area 125

− 14°, − 15°

51—110			
Mag.	α 12^m	x	$y-10'$
	s	′	′ ″
17.83 3	4.3	1.05	0 28
18.07 3	5.2	1.24	7 01
18.20 1	5.2	1.25	3 04
16.86 5	5.4	1.30	5 04
15.06 10	5.9	1.42	12 54
17.65 3	5.9	1.43	12 20
12.98 15	6.4	1.55	4 54
17.67 3	7.1	1.72	12 47
16.52 3	8.0	1.92	14 30
16.71 7	8.3	1.99	2 40
15.04 11	8.7	2.10	8 54
15.52 9	8.9	2.15	2 45
15.16 9	9.0	2.17	7 09
17.31 3	9.1	2.19	11 05
17.24 3	9.6	2.33	0 00
17.64 3	10.0	2.43	0 41
16.16 9	10.7	2.57	5 19
15.18 9	10.8	2.61	13 14
17.76 3	11.6	2.81	13 33
10.84w13	11.7	2.82	14 32
16.35 9	12.0	2.90	12 26
16.37 9	12.2	2.96	0 58
18.02 1	12.4	3.00	1 01
17.10 3	12.6	3.06	13 58
17.27 3	12.9	3.13	14 17
15.66 9	13.7	3.29	14 54
18.20 1	13.8	3.33	2 10
16.54 7	13.9	3.35	10 11
13.41 16	14.3	3.44	0 08
18.33 1	14.3	3.45	1 44
16.83 5	15.1	3.65	9 46
16.40 9	15.4	3.73	11 31
10.69w13	15.6	3.77	4 02
14.58 11	15.9	3.86	2 26
17.01 3	16.0	3.87	4 32
17.42 3	16.2	3.93	8 47
17.90 2	16.9	4.08	0 52
17.81 3	17.1	4.13	14 45
17.52 3	17.2	4.16	0 27
17.71 3	17.3	4.17	13 57
17.76 3	17.8	4.30	13 54
18.05 2	18.2	4.39	6 25
12.85 13	18.5	4.48	2 07
17.92 2	19.2	4.65	11 31
17.63 3	19.3	4.66	11 08
16.65 6	19.3	4.67	11 21
9.28w10	19.5	4.69	5 21
15.17 9	19.5	4.70	3 53
17.82 3	19.6	4.72	10 26
17.71 3	20.5	4.95	3 55
16.41w 6	21	5.0	1 30
18.33 1	20.9	5.04	3 51
18.07 3	20.9	5.05	0 31
18.14 1	20.9	5.05	3 21
18.28 2	21.2	5.13	0 08
12.49 15	21.6	5.22	2 59
15.93 9	21.7	5.25	10 32
18.17 3	21.9	5.30	9 25
18.58 1	22.2	5.36	7 38
17.10 5	23.7	5.73	6 01

111—170			
Mag.	α 12^m	x	$y-10'$
	s	′	′ ″
17.98 3	23.8	5.75	6 33
17.84 3	23.9	5.77	14 00
18.58 1	24.0	5.80	6 58
17.07 3	24.0	5.81	13 05
16.77 4	24.1	5.82	10 43
15.88 9	24.5	5.93	4 43
16.80 5	25.1	6.06	0 35
16.75 5	25.6	6.17	8 24
18.45 1	25.9	6.24	0 31
18.01 3	27.0	6.52	7 52
17.69d 1	27.5	6.66	8 50
16.87 5	27.6	6.68	7 30
13.31 11	27.9	6.74	1 55
16.51 7	27.9	6.74	2 28
16.86 5	28.3	6.83	5 10
18.30 2	28.4	6.85	3 55
18.33 1	28.7	6.93	13 42
16.91 4	29.2	7.05	1 49
16.59 5	29.6	7.14	14 13
18.27 1	29.7	7.18	0 54
16.03 9	30.4	7.35	0 23
16.25: 2	30.4	7.35	4 26
17.98 3	30.4	7.36	0 47
17.45 3	30.6	7.39	1 01
16.08 8	30.6	7.40	14 46
14.54 11	30.7	7.42	12 54
15.11 9	31.3	7.54	4 57
13.01 17	31.4	7.57	7 38
17.92 2	31.7	7.64	7 51
17.94 3	32.7	7.91	12 13
16.45 8	32.9	7.94	0 24
17.29 3	33.1	7.99	3 59
12.75 15	33.4	8.08	12 35
18.33 1	33.5	8.10	3 11
14.42 11	33.7	8.14	9 18
15.93 9	34.0	8.23	12 59
16.73 3	34.1	8.25	14 34
17.28 3	34.1	8.25	9 46
18.02 1	34.6	8.36	3 31
17.77 3	34.8	8.39	9 44
16.07 9	34.8	8.40	2 46
17.01 3	35.0	8.44	13 13
17.26 3	35.0	8.45	0 10
17.45 3	35.5	8.58	1 41
15.15 10	35.6	8.59	6 07
16.64 5	35.6	8.60	5 16
11.64 13	36.3	8.77	3 35
17.22 3	36.3	8.77	1 06
12.84 14	36.4	8.81	13 55
16.11 8	36.8	8.91	14 19
16.98 3	36.9	8.92	14 04
17.37 3	36.9	8.93	13 46
17.98 3	37.0	8.95	7 54
17.96 3	37.4	9.03	5 45
14.16 12	37.6	9.08	13 48
17.52 3	37.8	9.13	11 00
17.46 3	38.7	9.35	1 41
17.78 3	38.7	9.36	8 35
14.63 12	38.7	9.36	9 48
18.45 1	39.1	9.44	5 51

171—208			
Mag.	α 12^m	x	$y-10'$
	s	′	′ ″
17.48 3	39.9	9.65	14 08
16.74 5	40.4	9.76	8 10
17.23 3	40.6	9.80	7 11
16.99 3	41.4	10.01	4 21
12.07 15	41.6	10.04	5 43
16.37 8	41.8	10.09	5 54
17.41 3	42.0	10.16	5 05
15.45 10	42.2	10.20	5 20
17.17 3	42.2	10.20	10 36
14.85 12	42.4	10.25	12 19
16.04 9	42.8	10.35	13 59
16.24 9	42.9	10.36	14 11
17.62 3	42.9	10.36	3 42
14.40 13	42.9	10.36	8 13
17.61 3	43.1	10.41	11 54
17.16 2	44.1	10.64	12 10
18.39 1	44.1	10.65	2 09
17.82 3	44.1	10.66	8 36
17.23 3	44.5	10.74	11 34
18.14 1	44.6	10.77	1 01
17.76 3	44.9	10.84	4 04
18.39 1	44.9	10.85	1 47
16.04 9	44.9	10.85	0 11
12.28 14	45.1	10.89	0 03
16.81 5	45.3	10.94	4 45
18.39 1	45.5	11.01	7 02
17.73 3	45.7	11.05	4 34
17.84 3	46.2	11.14	6 48
13.58 13	46.2	11.15	4 41
17.81 2	47.2	11.39	9 59
17.81 3	47.4	11.44	8 14
16.77 5	47.4	11.44	7 13
15.07 10	48.4	11.70	2 00
16.46 7	48.8	11.78	1 51
17.57 3	49.0	11.83	2 56
17.32 3	49.5	11.95	0 35
14.76 12	49.6	11.98	2 14
16.08 9	49.7	12.00	13 08

1s—60s			
Mag.	α 11^m	x	$y-70'$ $y-10'$
	s	′	′
15.86 7	37	94.4	7.2
15.10 7	38	94.6	6.3
17.49 2	37	94.6	8.6
17.39 2	38	94.7	1.0
16.11 7	40	95.1	8.3
16.24 7	41	95.3	2.6
16.26 7	43	95.8	0.8
17.61 2	42	95.8	2.9
17.37 2	42	95.8	6.4
16.04 7	43	95.8	7.6
16.09 5	43	95.8	11.6
16.29 7	43	95.9	6.2
16.49 4	43	96.0	10.6
17.31 2	44	96.2	59.6
14.52 10	44	96.2	11.7
17.49 2	45	96.4	10.8
15.49 7	45	96.4	11.8
15.39 7	46	96.6	3.3
14.49 10	46	96.6	8.6
15.36 6	46	96.6	12.7
14.42 9	46	96.6	12.8
16.22 7	47	96.8	8.8
15.00 9	47	96.8	9.6
17.20 2	47	96.8	11.9
17.27 2	49	97.2	0.0
15.89 7	49	97.3	57.6
14.91 9	50	97.6	0.0
15.72 7	51	97.9	58.7
16.41 6	54	98.5	59.7
16.38 3	54	98.6	57.0
15.40 7	56	99.0	58.6
13.41 13	58	99.6	56.6
17.07 2	58	99.6	59.6
17.27 2	60	99.9	57.0
17.49 2	60	0.0	55.2
16.74 4	61	0.3	0.0
16.19 7	62	0.6	55.9
16.08 7	63	0.7	55.7
17.51 2	64	0.9	57.0
16.36 6	66	1.4	57.8
17.69 2	67	1.6	59.1
17.55 2	67	1.6	15.4
15.72 7	67	1.7	56.3
17.45 2	67	1.8	55.4
16.09 7	71	2.6	55.8
16.40 7	71	2.6	58.6
17.49 2	72	3.0	15.3
10.02 10	73	3.2	59.6
15.66 7	74	3.3	57.8
17.81 2	74	3.5	58.6
17.81 2	75	3.6	58.4
16.56 2	75	3.7	54.8
17.09 2	75	3.7	58.3
17.76 2	78	4.3	58.6
16.53 6	78	4.3	59.1
13.79 10	80	4.8	55.6
14.55 10	81	5.0	56.0
13.57 12	81	5.0	15.9
12.93 15	81	5.2	59.8
14.55 10	82	5.2	16.2

61s—110s			
Mag.	α 12^m	x	$y-70'$ $y-10'$
	s	′	′
15.01 8	22	5.4	55.8
17.57 2	23	5.6	57.0
17.46 2	24	5.8	15.3
15.83 7	24	5.9	54.9
14.51 11	28	6.7	59.7
15.98 7	29	6.9	57.8
17.81 2	29	7.0	58.5
16.41 4	30	7.2	56.2
16.69 4	31	7.4	58.3
17.45 2	32	7.8	55.9
17.13 2	33	8.0	59.2
17.13 2	36	8.8	0.0
14.88 9	38	9.2	58.9
15.89 7	41	9.8	58.4
16.95 2	41	9.9	56.3
17.55 2	41	9.9	57.4
16.16 7	42	10.1	58.3
17.35 2	48	11.6	59.2
13.79 13	49	12.0	1.1
16.20 7	50	12.0	8.9
15.02 9	50	12.1	6.7
16.45 3	50	12.1	9.6
17.07 2	50	12.1	12.8
17.69 2	51	12.2	5.8
17.45 2	50	12 2	12.3
17.67 2	51	12.3	6.1
14.58 10	51	12.4	6.0
17.51 2	51	12.4	11.4
16.05 7	52	12.6	2.8
13.97 11	52	12.6	11.7
17.67 2	53	12.7	5.8
16.27 7	53	12.8	8.4
16.09 7	54	13.0	6.0
16.63 4	54	13.1	5.6
17.33 2	55	13.3	59.0
17.61 2	56	13.4	4.7
17.25 2	56	13.4	5.6
15.02 9	56	13.6	6.6
17.47 2	56	13.6	8.9
13.68 12	56	13.6	11.0
16.09 7	57	13.8	6.7
14.65 10	58	14.0	5.5
17.09 2	58	14.0	8.8
17.37 2	58	14.1	10.1
17.13 2	59	14.2	4.0
15.62 7	60	14.4	2.3
15.82 7	59	14.4	6.0
14.52 10	60	14.4	7.6
15.83 7	60	14.6	1.8
13.26 13	62	14.9	8.2

25 prec. + $70^s.8$, − 6′ 13″

1—30					31—60					61—90					91—119				
Mag.		α 15m	x	y−60′ / y	Mag.		α 15m	x	y−60′ / y	Mag.		α 15m	x	y−60′ / y	Mag.		α 16m	x	y−60′ / y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
18.30	3	29.1	92.54	59 50	19.06	1	44.7	96.29	0 31	7.49h	1	59.5	99.88	59 04	18.29	3	16.0	3.88	3 11
15.74	10	29.4	92.60	58 20	18.30	3	44.7	96.29	52 42	15.82	9	60.3	0.07	57 14	16.72	3	16.2	3.92	4 42
17.85	3	31.6	93.14	50 07	16.35	9	45.7	96.55	56 41	17.33	3	60.8	0.20	50 12	14.81	11	17.6	4.26	3 47
17.89	3	31.6	93.15	56 05	15.28	8	46.5	96.75	4 02	14.41	13	61.2	0.29	52 08	17.29	3	17.7	4.27	55 37
18.21	3	31.8	93.20	59 17	11.30	9	47.4	96.96	0 16	17.96	2	61.4	0.34	57 44	17.92	3	18.1	4.37	57 20
18.42	2	32.8	93.42	4 17	17.70	3	48.0	97.09	0 44	18.04	3	62.0	0.48	50 49	12.14	11	18.6	4.49	58 15
16.86	4	33.4	93.57	51 59	15.46	9	48.2	97.14	1 31	18.87	1	62.3	0.56	58 29	18.12	3	18.8	4.55	52 32
16.18	9	33.4	93.58	51 33	18.12	2	48.9	97.33	52 54	17.45	3	62.7	0.66	50 30	18.52	2	18.9	4.57	0 40
18.87	1	34.5	93.86	53 41	18.59	1	49.0	97.34	0 33	19.35	1	62.8	0.67	57 47	17.28	3	19.0	4.61	51 07
17.22	3	35.1	93.98	55 48	16.46	8	49.0	97.36	57 58	18.31	3	63.9	0.94	50 12	17.97	3	19.2	4.64	4 23
16.74*	1	35.8	94.15	52 57	13.55	12	49.0	97.36	53 57	17.08	4	64.4	1.06	59 57	11.84w	8	19.3	4.67	53 08
16.23	5	35.9	94.17	53 11	16.98	3	50.2	97.63	2 33	18.34	2	64.8	1.15	1 52	17.48	3	21.3	5.16	58 57
17.92	1	35.9	94.17	52 51	17.74	3	50.7	97.74	0 00	17.62	3	65.6	1.34	50 06	16.74	4	21.4	5.17	50 20
17.78	3	36.3	94.27	55 27	13.37	14	51.1	97.86	52 08	16.93	3	65.7	1.38	54 13	16.93	3	22.8	5.50	56 37
18.21	1	36.7	94.37	0 37	18.28	2	51.5	97.95	2 07	18.23	2	66.0	1.45	57 02	18.77	1	23.0	5.56	50 47
16.16	9	36.8	94.39	55 22	18.16	2	51.9	98.05	4 56	16.80	7	66.2	1.50	59 37	18.08	3	23.3	5.63	51 40
16.37	8	37.0	94.44	0 29	16.76	5	52.3	98.16	55 40	14.67	12	66.6	1.60	50 38	18.36	3	24.1	5.83	51 40
14.46	13	37.4	94.55	0 47	15.82	7	52.3	98.16	58 07	17.06	3	66.7	1.63	1 42	15.35	10	24.4	5.89	54 00
13.32	14	37.6	94.61	55 50	17.48	3	52.4	98.18	51 23	17.06	5	66.7	1.63	0 32	15.57	10	24.6	5.96	2 57
16.90	3	38.9	94.90	59 40	18.52	2	53.2	98.36	57 21	16.71	5	67.7	1.85	2 53	18.24	3	25.1	6.07	3 49
18.18	3	39.6	95.07	52 08	17.60	3	53.6	98.45	0 14	18.64	2	68.3	1.99	53 04	14.84	12	25.3	6.10	53 01
18.38	2	40.6	95.32	1 13	18.52	3	54.8	98.74	55 55	17.15	3	69.4	2.28	52 30	18.96	1	26.1	6.30	59 31
17.33	3	41.1	95.42	57 10	17.82	3	55.9	99.00	56 30	14.96	10	70.4	2.49	4 28	18.25	3	26.1	6.31	54 06
16.82	5	41.9	95.63	52 56	18.33	2	56.3	99.09	0 38	18.59?	1	71.0	2.66	53 04	16.41	9	26.5	6.39	58 25
18.00	3	42.2	95.71	52 54	16.85	3	57.6	99.42	4 32	15.15	11	71.2	2.70	54 41	14.77	10	27.1	6.54	4 27
16.97	3	42.8	95.84	2 51	17.49	3	58.0	99.52	3 19	16.56	7	73.5	3.26	57 04	18.77	1	27.2	6.57	50 41
14.94	11	43.2	95.96	3 21	18.38	2	58.1	99.54	0 38	14.65	13	74.4	3.47	54 56	18.77	1	28.0	6.77	54 05
17.48	3	43.9	96.09	0 34	16.85	3	58.8	99.69	4 28	17.75	3	74.5	3.51	50 52	15.68	10	29.2	7.04	3 21
17.46	3	44.0	96.13	54 32	14.87	11	58.9	99.73	4 22	17.50	3	74.7	3.56	54 32	16.67	5	29.6	7.16	56 06
17.89	3	44.3	96.21	3 15	18.20	3	59.4	99.84	55 24	18.15	3	75.5	3.75	4 43					

25 prec. + 72ˢ.8, – 7′ 30″

10h Area 126. Supplementary Stars – 14°, – 15°

1s—20s					21s—40s					41s—60s					61s—80s					81s—90s				
Mag.		α 15m	x	y−60′ / y	Mag.		α 15m	x	y−60′ / y	Mag.		α 15m	x	y−60′ / y	Mag.		α 16m	x	y−60′ / y	Mag.		α 16m	x	y−60′ / y
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
16.38	5	13	88.6	0.9	16.19	7	24	91.4	52.4	17.34	2	48	97.0	48.9	16.67	3	14	3.5	48.8	15.81	7	38	9.2	52.9
13.92	11	15	89.2	56.2	18.05	2	24	91.4	59.4	14.40	11	49	97.2	7.6	17.77	2	20	4.8	5.5	17.06	2	38	9.2	57.4
16.12	6	15	89.2	57.8	16.77	2	25	91.5	54.8	15.94	7	49	97.4	48.6	17.97	2	20	4.8	6.0	17.83	2	39	9.4	3.6
16.97	2	15	89.2	1.0	16.62	5	25	91.6	59.2	17.27	2	49	97.4	7.7	17.91	2	22	5.2	8.9	18.02	2	41	9.8	0.0
16.17	7	15	89.2	1.9	15.62	8	26	91.8	1.4	18.09	2	53	98.3	48.1	11.79	8	24	5.8	8.3	17.77	2	41	10.0	.2
16.56	5	17	89.6	58.0	18.09	2	27	92.0	5.0	18.27	2	53	98.4	6.9	16.75	2	27	6.4	5.8	16.07	7	42	10.2	59.7
17.61	2	18	89.8	57.0	18.01	2	28	92.2	55.4	17.75	2	55	98.9	6.7	17.63	2	29	7.0	6.0	17.86	2	42	10.2	3.7
15.66	7	18	89.8	57.6	15.75	7	28	92.2	59.0	17.99	2	60	0.0	49.5	16.68	2	30	7.2	6.8	15.04	9	43	10.4	2.3
17.85	2	19	90.0	54.0	16.71	4	28	92.2	2.7	16.61	4	61	0.2	6.6	16.68	2	31	7.6	4.4	16.99	2	43	10.4	3 6
12.56	11	19	90.1	54.9	18.05	2	28	92.3	52.2	17.03	2	63	0.7	8.0	16.04	7	32	7.8	50.9	14.00	11	46	11.0	2.6
17.28	2	19	90.2	57.2	17.97	2	28	92.3	55.4	17.80	2	65	1.2	9.7	17.83	2	34	8.2	52.1					
17.93	2	19	90.2	4.0	16.63	2	29	92.4	56.8	12.74	8	65	1.2	10.0	16.21	4	34	8.2	53.6					
17.57	2	20	90.3	59.8	13.91	8	33	93.4	6.3	14.37	11	67	1.6	49.2	18.09	2	34	8.2	54.2					
16.18	7	20	90.4	56.6	17.83	2	35	94.0	9.3	15.15	9	67	1.6	6.3	17.65	2	35	8.4	52.2					
17.95	2	20	90.4	5.2	16.44	5	37	94.5	8.5	17.19	2	68	2.0	5.8	17.21	2	36	8.6	55.6					
17.18	2	21	90.5	3.2	17.56	2	38	94.6	49.3	13.23	13	70	2.4	48.8	17.94	2	35	8.6	56.6					
18.27	2	21	90.6	57.7	15.15	8	39	95.0	9.3	16.53	5	71	2.6	7.0	17.61	2	36	8.6	57.0					
18.02	2	23	91.0	6.3	18.13	2	41	95.4	8.3	17.86	2	71	2.7	8.6	17.61	2	36	8.8	0.4					
17.68	2	24	91.2	4.2	18.02	2	43	95.9	48.6	16.69	3	73	3.2	7.4	14.10	11	36	8.8	6.1					
15.19	9	24	91.3	59.3	18.06	2	44	96.2	48.6	17.47	2	74	3.3	5.4	17.47	2	37	9.0	56.0					

25 prec. + 72ˢ.8, – 7′ 30″

Area 127. Center for 1900: 11h 13m − 15° 20′ (20′ × 20′)

1—40				
Mag.		α 12^m	x	y − 20′
		s	′	′ ″
13.94	12	18.9	90.10	16 27
16.04	1	20.5	90.45	6 51
16.87	3	21.5	90.73	17 20
17.59	1	21.8	90.77	5 32
15.13	10	22.0	90.84	19 06
15.88	10	22.4	90.94	17 45
15.44	2	23.4	91.15	7 50
16.18	1	24.2	91.35	8 05
14.12	1	24.4	91.41	8 38
17.13	3	24.5	91.44	17 57
14.49	13	26.6	91.94	17 43
16.75	3	28.3	92.37	19 24
17.11	3	29.8	92.72	13 30
16.24	1	29.9	92.74	6 18
17.07	3	29.9	92.74	19 57
16.31	9	30.0	92.77	13 57
13.83	13	30.2	92.82	22 30
17.50	3	31.0	93.03	13 12
17.61	3	32.3	93.33	16 01
17.71	3	32.4	93.34	15 44
17.67	3	33.0	93.49	19 33
16.33	7	33.1	93.52	11 57
14.77	12	34.4	93.82	24 48
14.71	11	34.5	93.85	17 29
15.14	10	34.8	93.93	18 40
15.17	10	34.8	93.93	19 26
17.38	3	36.8	94.41	14 06
14.79	12	37.0	94.44	7 26
15.27	10	37.0	94.44	18 31
17.30	3	37.4	94.56	18 04
17.34	3	38.5	94.82	14 27
14.90	11	39.2	94.99	17 13
17.60	3	39.3	95.03	12 41
15.32	11	39.6	95.08	14 14
14.62	11	39.8	95.12	22 00
16.46	9	41.0	95.43	13 05
17.43	3	41.8	95.62	16 45
17.08	3	42.2	95.71	15 28
14.10	12	43.9	96.12	13 44
14.94	11	44.0	96.14	17 05

41—80				
Mag.		α 12^m	x	y − 20′
		s	′	′ ″
17.70	3	44.1	96.17	12 51
17.28	3	44.5	96.25	5 32
16.81	3	44.7	96.33	23 06
16.98	3	45.2	96.43	12 45
16.63	2	46.3	96.69	18 17
17.73	3	46.6	96.77	17 10
17.78	2	47.1	96.91	22 35
16.71	3	49.0	97.34	24 22
15.99	9	50.4	97.68	22 33
16.76	3	50.6	97.72	19 41
12.80	15	51.0	97.83	24 41
16.52	7	51.1	97.84	21 30
17.38	3	52.8	98.25	5 51
16.97	3	52.8	98.26	9 52
18.02	3	52.8	98.28	15 59
17.29	3	53.8	98.49	11 50
17.13	3	54.1	98.58	9 32
17.50	3	54.5	98.68	6 08
17.01	3	54.9	98.77	15 34
17.49	3	55.1	98.80	24 47
17.29	3	55.2	98.82	12 07
14.06	12	55.3	98.85	22 45
17.01	3	55.7	98.96	8 17
15.07	11	56.8	99.22	10 23
17.75	3	57.3	99.35	13 22
17.52	3	58.3	99.60	5 48
15.68	10	58.5	99.63	5 34
16.80	4	59.0	99.76	13 02
17.49	3	59.4	99.84	6 36
17.09	3	59.6	99.89	18 07
17.50	3	59.8	99.95	5 31
16.96	3	59.9	99.97	19 24
15.26	7	59.9	99.97	16 36
15.12	10	60.1	0.03	24 51
9.31w	**8**	**60.2**	**0.06**	**16 32**
17.53	3	60.6	0.15	12 16
17.23x	1	60.8	0.20	19 31
16.28	9	60.9	0.22	23 14
17.38	3	60.9	0.22	22 17
17.99	1	61.0	0.24	13 02

81—120				
Mag.		α 13^m	x	y − 20′
		s	′	′ ″
15.95	9	1.2	0.29	22 35
17.33	3	2.9	0.71	19 38
17.87	3	3.8	0.92	12 38
15.66	10	3.8	0.93	12 03
17.51	3	4.5	1.08	24 33
17.04	3	5.8	1.39	13 16
17.20	3	6.7	1.62	20 58
16.51	7	7.4	1.78	22 34
17.84	3	7.9	1.91	20 48
17.29	3	8.0	1.93	19 38
17.60	3	8.5	2.04	12 02
17.08	3	8.9	2.14	9 01
17.46	3	9.4	2.27	7 36
17.76	3	9.4	2.28	15 35
16.98	3	10.2	2.45	7 00
17.72	3	11.0	2.64	17 05
16.40	7	11.3	2.72	24 37
17.51	3	11.3	2.73	18 31
15.07	11	15.8	3.79	10 20
17.16	3	17.5	4.23	18 33
17.44	3	17.6	4.26	21 40
17.10	3	18.3	4.41	17 38
12.35	15	20.4	4.93	11 43
17.42	3	21.0	5.04	17 26
16.00	9	21.4	5.15	19 21
15.94	9	21.7	5.24	8 56
12.91	12	21.8	5.24	12 41
13.70	1	22.1	5.34	5 55
17.48	3	22.6	5.44	16 46
17.24	3	23.3	5.63	20 32
12.94	15	24.3	5.86	10 21
16.08	10	25.3	6.11	15 00
16.42	6	25.9	6.26	20 26
17.51	3	26.2	6.32	17 44
17.65	1	26.9	6.51	6 25
17.02	1	28.0	6.76	5 56
17.59d	1	28.8	6.94	15 15
16.91	3	29.1	7.01	11 40
16.46	5	29.2	7.03	20 03
17.59	1	30.4	7.34	6 17

121—140				
Mag.		α 13^m	x	y − 20′
		s	′	′ ″
17.59w	2	31	7.4	18 48
16.93	3	30.9	7.46	14 59
16.00	9	31.3	7.56	16 43
12.54	16	31.5	7.59	20 27
12.58	1	32.1	7.76	5 48
17.37	3	32.5	7.82	23 31
16.98	2	32.8	7.91	22 33
14.37	12	33.0	7.94	22 29
17.16	3	33.4	8.06	22 58
15.76	2	33.6	8.13	6 50
16.41	7	35.5	8.54	17 49
17.40	3	37.2	8.96	14 00
16.80	1	37.7	9.09	8 19
16.40	5	37.9	9.13	22 21
17.48	3	38.2	9.21	22 38
16.28	9	38.5	9.27	17 04
16.24	1	38.7	9.36	6 20
10.70w	8	39.2	9.44	23 15
17.38	3	39.9	9.62	22 28
17.51	1	39.9	9.62	5 50

1s—15s				
Mag.		α 12^m	x	y − 20′
		s	′	′
14.93	5	15	89.2	16.6
14.07	10	15	89.2	18.3
16.06	8	17	89.8	20.5
16.26	6	18	90.0	22.1
13.49	12	30	92.8	25.0
17.40	2	38	94.6	25.8
16.36	4	39	95.0	27.0
15.32	8	48	97.1	27.5
17.44	2	60	99.9	25.4
15.96	8	67	1.8	26.9
17.46	2	71	2.7	25.6
17.46	2	83	5.4	25.0
15.97	8	102	10.2	15.1
14.99	9	102	10.2	15.6
15.74	8	104	10.6	14.5

25 prec. + $75^{s}.0$, − 8′ 11″

12h — 15°

Area 128. Center for 1900: 12h 14m − 15° 10′ (20′ × 20′)

1—10				
Mag.		α 13^m	x	y − 10′
		s	′	′ ″
15.42	1	6.4	87.04	8 44
17.70	1	7.8	87.39	2 46
16.85	3	7.9	87.44	19 27
17.75	3	10.3	87.99	11 16
13.88	12	11.7	88.33	13 14
17.24	3	12.1	88.43	11 20
8.20h	1	12.3	88.48	2 18
9.56w	10	14.4	89.02	15 18
17.90	3	17.2	89.67	11 02
17.80	3	17.7	89.77	13 22

11—20				
Mag.		α 13^m	x	y − 10′
		s	′	′ ″
17.10	1	17.8	89.80	2 44
17.92	3	18.3	89.94	17 39
16.07	8	19.2	90.15	6 07
12.98	17	19.7	90.27	11 33
15.96	8	20.7	90.52	15 48
16.53	7	20.8	90.54	15 06
16.32	8	21.1	90.62	19 18
16.09	8	21.8	90.78	14 46
16.62	1	22.1	90.84	2 33
15.01	12	22.1	90.85	17 09

21—30				
Mag.		α 13^m	x	y − 10′
		s	′	′ ″
17.60	3	22.4	90.96	19 02
17.94	1	22.8	91.03	8 17
17.34d	1	23.1	91.10	18 45
17.94	2	23.2	91.11	13 59
15.00	1	23.4	91.14	2 38
16.15	8	24.3	91.38	15 09
16.65	5	24.4	91.39	5 12
16.74	5	24.8	91.51	12 41
17.86	2	27.4	92.13	7 50
14.88	10	27.5	92.16	9 40

31—40				
Mag.		α 13^m	x	y − 10′
		s	′	′ ″
16.58w	6	28	92.2	9 12
17.82	1	28.5	92.41	3 20
11.65	14	28.7	92.46	7 30
16.25	8	29.4	92.62	18 43
18.00?	1	29.5	92.65	18 51
16.30	8	30.7	92.94	17 36
16.53	7	30.7	92.94	17 47
17.52	1	31.5	93.13	2 42
17.50	2	32.2	93.28	8 57
17.58	1	33.3	93.55	0 43

41—50				
Mag.		α 13^m	x	y − 10′
		s	′	′ ″
15.64	9	33.6	93.63	7 11
13.09	1	34.0	93.72	2 35
17.99	3	34.6	93.87	13 55
17.79	3	35.7	94.13	5 47
16.35	7	35.8	94.15	9 17
18.16	2	37.7	94.62	12 49
18.16	2	37.9	94.66	14 00
17.85	3	38.0	94.68	7 21
17.45	3	38.9	94.90	12 10
17.99	3	39.2	95.00	16 59

25 prec. + $77^{s}.3$, − 8′ 20″

51—80			
Mag.	α 13^{m}	x	$y-10'$
	s	′	′ ″
18.26 2	39.4	95.03	13 10
18.16 2	41.2	95.45	13 06
18.13 2	42.6	95.81	13 21
16.80 5	44.1	96.14	6 42
16.10 9	44.2	96.18	15 37
17.77 3	44.5	96.24	3 01
16.92 1	44.8	96.33	0 49
12.94 17	44.8	96.33	14 33
16.52 8	46.5	96.71	7 02
18.01 2	46.9	96.83	12 29
14.23 13	47.7	97.02	14 43
13.93 13	48.6	97.25	19 58
16.81 3	48.6	97.25	19 14
17.66 2	49.0	97.34	15 36
15.13 12	49.2	97.41	4 15
9.38w 10	49.4	97.44	13 55
16.73 7	49.7	97.53	19 48
17.72 2	51.2	97.89	9 55
17.71 3	51.7	98.00	3 04
14.33 13	51.9	98.06	6 53
15.60 9	52.2	98.13	4 47
17.10 1	53.5	98.42	0 12
14.06 12	54.1	98.58	17 10
15.26 10	54.1	98.58	19 42
17.64x 1	54.6	98.69	17 00
17.30 3	54.6	98.70	2 52
17.82 2	55.2	98.85	5 42
13.77 1	55.4	98.91	0 10
18.16 2	55.5	98.93	15 16
18.06 1	55.5	98.93	10 19

81—110			
Mag.	α 13^{m}	x	$y-10'$
	s	′	′ ″
16.96 5	55.9	99.00	13 07
16.04 8	56.0	99.03	7 56
16.47 8	56.1	99.04	4 30
17.96 2	57.3	99.35	7 09
17.17 2	57.5	99.40	12 06
16.63 5	57.7	99.45	18 29
17.10d 1	58.3	99.59	7 51
17.70 1	58.5	99.64	0 56
18.16 2	58.9	99.72	14 15
17.96 2	59.4	99.84	18 08
16.94 5	60.0	0.00	13 19
18.04 2	62.4	0.58	17 11
17.75 2	63.9	0.95	9 47
16.80 1	65.2	1.25	2 25
17.94 3	65.3	1.28	19 06
17.58 1	65.8	1.40	0 53
17.81 3	66.2	1.49	6 56
15.47 8	66.3	1.53	16 46
17.64 3	66.8	1.64	5 13
17.76 1	68.1	1.96	0 41
17.66 2	68.2	1.98	12 34
14.91 1	68.6	2.08	2 04
16.44 1	68.8	2.13	2 31
17.10 1	69.7	2.36	2 48
17.28 1	70.0	2.42	0 33
17.57 3	71.4	2.75	7 08
15.11 11	71.8	2.86	19 21
13.29 17	71.9	2.88	11 03
15.16 11	73.4	3.24	16 16
17.52 1	73.5	3.27	0 02

111—140			
Mag.	α 14^{m}	x	$y-10'$
	s	′	′ ″
16.98 3	14.3	3.46	12 09
17.87 3	14.5	3.49	7 22
17.86 3	14.6	3.52	19 16
17.28 1	15.1	3.65	1 22
18.00 1	15.2	3.67	16 13
14.55 14	15.7	3.77	18 51
15.60 1	15.8	3.82	1 28
16.92 1	15.9	3.85	1 08
13.54 16	15.9	3.85	8 07
16.45 8	15.9	3.85	8 22
17.22 1	17.0	4.11	2 26
17.66 2	18.2	4.36	15 18
16.82w 4	19	4.5	11 48
11.19w 14	18.8	4.54	12 12
16.32 8	19.1	4.62	6 22
16.53 7	19.2	4.64	8 16
14.32 1	19.7	4.74	3 29
17.04 1	20.1	4.86	4 52
17.11 3	20.5	4.95	17 01
16.45 5	20.8	5.03	10 10
17.03 3	20.9	5.04	13 46
16.58 5	21.3	5.14	8 03
17.76 1	22.2	5.37	2 45
16.50 1	23.1	5.58	3 48
17.63 3	24.1	5.82	9 14
16.44 1	24.1	5.83	1 19
17.21 3	24.2	5.85	9 07
17.53 3	24.4	5.87	18 18
15.02 12	24.7	5.96	16 27
16.83 5	25.3	6.11	9 12

141—147			
Mag.	α 14^{m}	x	$y-10'$
	s	′	′ ″
17.56 3	26.1	6.31	12 19
15.39 9	26.3	6.35	18 57
15.14 10	26.4	6.37	12 31
17.82 1	26.6	6.42	6 41
17.16 1	26.6	6.43	2 52
16.14 1	27.7	6.71	0 19
17.28d 1	28.6	6.91	17 40

1s—25s			
Mag.	α 13^{m}	x	$y-10'$
	s	′	′
17.04 2	4	86.4	12.2
16.99 2	5	86.7	13.1
17.11 2	11	88.1	20.5
15.91 7	26	91.8	23.8
17.08 2	28	92.3	22.6
16.10 7	31	93.0	22.4
17.40 2	34	93.8	23.8
15.82 7	41	95.4	23.8
17.90 2	44	96.1	21.4
14.44 12	46	96.6	24.0
12.01 14	47	96.8	23.8
17.55 2	50	97.5	23.6
16.56 6	52	98.0	21.3
17.70 2	53	98.2	23.4
16.84 4	58	99.4	20.1
16.36 7	58	99.6	21.4
16.48 6	58	99.6	21.5
15.81 7	59	99.7	21.4
16.88 2	59	99.8	24.6
16.47 6	69	2.2	22.4
17.69 2	70	2.3	23.6
16.46 7	71	2.6	21.5
16.50 6	71	2.8	22.6
17.21 2	89	7.0	9.6
13.78 13	93	8.0	15.0

25 prec. + $77\overset{\mathrm{s}}{.}3$, − 8′ 20″

13^h Area 129. Center for 1900: $13^h\ 14^m$ − 15° 0′ (20′ × 20′) − 14°, − 15°

1—20			
Mag.	α 13^{m}	x	$y-60'$ y
	s	′	′ ″
17.87 3	19.0	90.09	0 22
17.31 3	19.9	90.32	7 50
17.28 3	20.9	90.55	2 41
17.57 3	21.8	90.78	3 19
15.61 1	21.8	90.78	53 52
17.12 1	22.0	90.83	51 12
12.72 14	23.8	91.24	57 45
15.08 11	25.2	91.61	58 30
16.54 8	25.6	91.69	7 46
16.73 1	26.1	91.81	53 54
17.38 3	26.7	91.95	0 26
17.36 3	26.9	91.99	7 27
16.58 8	27.3	92.09	54 14
18.06 1	27.6	92.18	52 04
15.18 9	28.5	92.41	2 33
18.06 1	28.9	92.51	52 37
14.52 13	29.5	92.63	53 20
17.31 1	29.7	92.67	51 44
14.56 13	29.8	92.69	1 40
16.54 9	30.0	92.75	59 45

21—40			
Mag.	α 13^{m}	x	$y-60'$ y
	s	′	′ ″
16.76 8	31.0	93.01	3 44
16.27 9	33.0	93.48	52 50
17.29 3	33.2	93.53	53 44
14.56 1	33.4	93.57	51 32
17.36 3	33.8	93.68	59 28
17.12 3	34.2	93.78	55 18
18.11 3	34.2	93.78	6 24
18.39 3	34.8	93.92	0 44
17.44 3	34.8	93.93	53 26
18.40 3	35.5	94.07	59 10
15.65 9	36.0	94.20	58 32
15.65 9	36.2	94.25	7 01
14.43 12	36.4	94.31	57 05
18.09 3	37.8	94.64	2 02
13.70 13	38.0	94.68	52 20
17.80 3	38.1	94.71	2 51
17.81 3	38.1	94.71	3 32
18.06 1	39.3	95.00	51 05
17.16 3	39.6	95.08	8 21
16.71 9	40.4	95.28	4 16

41—60			
Mag.	α 13^{m}	x	$y-60'$ y
	s	′	′ ″
18.42 3	40.7	95.35	0 50
11.14w 10	41.4	95.58	56 52
14.20 13	42.1	95.72	55 08
16.20 9	42.8	95.86	9 28
16.68 8	43.0	95.89	3 20
18.38 1	44.3	96.21	3 13
14.95 12	45.7	96.56	51 33
16.08 9	47.4	96.95	1 45
17.65 3	49.2	97.41	56 15
17.07 7	50.1	97.61	59 39
17.58 3	50.3	97.64	3 49
17.21 3	50.4	97.67	55 43
14.35 14	51.1	97.85	54 08
16.94 4	51.2	97.88	58 03
18.22 3	52.4	98.17	2 17
15.75 9	52.8	98.27	58 52
18.44 1	53.2	98.34	1 25
18.33 3	54.1	98.57	55 06
18.06 1	54.2	98.60	50 20
15.44 9	54.8	98.74	2 01

61—80			
Mag.	α 13^{m}	x	$y-60'$ y
	s	′	′ ″
18.22 3	54.9	98.77	5 20
17.07 8	54.9	98.78	56 43
17.00 7	55.3	98.87	59 16
18.10 3	56.4	99.12	54 11
16.73 9	56.5	99.16	57 44
17.48 3	57.5	99.39	1 27
9.30w 8	58.1	99.55	2 26
13.74 14	58.1	99.56	53 09
18.09 3	58.7	99.68	8 21
17.48 3	59.0	99.76	4 24
17.33 3	59.6	99.89	4 43
17.61 3	60.3	0.08	59 07
18.19 1	60.4	0.10	8 11
17.78 3	60.6	0.16	58 27
18.30 3	61.1	0.28	2 19
17.58 3	61.9	0.45	53 19
16.90 3	62.4	0.57	51 43
15.84 9	62.4	0.58	52 35
18.06 1	63.1	0.74	50 35
18.50 1	63.2	0.77	1 44

81—100			
Mag.	α 14^{m}	x	$y-60'$ y
	s	′	′ ″
18.52 3	3.8	0.92	55 45
18.16 3	4.0	0.98	7 54
17.42 3	4.6	1.09	4 01
18.39 3	4.8	1.14	58 12
13.56 14	4.8	1.14	57 50
17.20 3	5.2	1.25	55 50
16.29 8	6.0	1.46	6 27
18.08 3	6.1	1.47	53 47
17.67 3	6.4	1.54	1 04
18.04 3	6.6	1.61	59 11
18.06 3	6.8	1.65	53 30
17.03 3	7.3	1.76	52 09
13.42 15	8.1	1.95	52 45
18.09 3	8.4	2.03	7 51
16.32 8	8.6	2.06	59 42
17.85 3	9.1	2.19	52 02
17.50 3	9.3	2.25	8 29
15.47 9	9.5	2.30	8 48
18.38? 1	11.4	2.74	3 11
18.08 2	11.6	2.80	54 03

25 prec. + $79\overset{\mathrm{s}}{.}5$, − 7′ 55″

13^h Area 129 − 14°, − 15°

101—120				
Mag.		α 14^m	x	$y-60'$ / y
		s	′	′ ″
18.19	3	11.9	2.87	7 24
14.63	13	12.4	3.00	51 46
17.11	3	12.4	3.01	3 39
15.28	11	12.5	3.03	5 37
16.25	8	12.6	3.05	1 10
17.40	3	13.0	3.16	53 43
17.77	3	13.3	3.22	5 36
14.58	14	14.9	3.61	58 33
16.08d	1	15.2	3.67	2 45
18.30	3	15.5	3.75	56 40
17.54	3	15.8	3.82	7 45
15.37	10	16.6	4.01	59 58
17.89	3	17.4	4.19	9 59
16.05	9	18.0	4.35	56 42
18.21	3	19.0	4.61	1 44
16.30	9	19.7	4.75	2 19
16.28	7	19.7	4.76	53 35
17.40	3	20.1	4.85	4 12
16.86	1	20.1	4.86	51 53
18.12	3	20.3	4.90	2 13

121—140				
Mag.		α 14^m	x	$y-60'$ / y
		s	′	′ ″
18.25	1	21.5	5.21	5 29
15.03	12	21.8	5.28	1 57
13.47	14	21.8	5.28	53 24
16.18	9	22.7	5.48	5 39
16.05	8	23.0	5.55	59 14
17.25	1	23.0	5.56	51 20
17.68	3	23.1	5.57	53 15
16.79	8	23.6	5.69	9 43
16.74	6	24.3	5.88	8 34
14.56	14	24.4	5.91	1 53
18.25	1	25.1	6.06	59 33
14.78	12	25.5	6.14	8 22
17.56	1	25.5	6.15	53 24
17.55	3	26.5	6.40	59 50
17.12	1	27.1	6.54	53 03
18.28	3	27.7	6.71	56 33
16.90	6	28.0	6.77	57 31
16.60	1	28.2	6.81	50 31
16.89	5	28.7	6.93	0 10
18.35	3	28.7	6.93	57 39

141—159				
Mag.		α 14^m	x	$y-60'$ / y
		s	′	′ ″
16.60	1	28.9	6.98	53 21
13.55	13	29.2	7.06	56 17
16.48	8	29.4	7.11	56 54
10.13w	8	31.3	7.55	5 56
17.60	3	32.0	7.73	3 55
16.70	8	32.1	7.75	58 35
15.29	10	36.1	8.72	6 52
17.55	3	36.6	8.86	1 35
17.50	1	36.9	8.92	53 24
18.19	1	37.5	9.05	59 13
18.19	3	37.5	9.05	1 19
17.97	3	37.7	9.10	6 25
18.00	3	37.8	9.12	58 55
17.25d	1	38.5	9.30	5 31
17.97	3	39.1	9.46	6 47
14.88	13	39.8	9.62	2 03
18.06	1	39.9	9.64	54 21
14.50	1	39.9	9.64	53 07
17.62	1	40.4	9.76	56 02

1*s*—20*s*				
Mag.		α 13^m	x	$y-60'$ / y
		s	′	′
17.74	2	14	88.9	59.6
17.71	2	15	89.2	0.6
16.00	8	17	89.5	57.6
15.23	9	18	89.8	0.2
15.01	10	28	92.4	11.2
14.98	10	30	92.7	11.8
17.89	2	30	92.8	11.0
17.13	2	32	93.2	11.9
16.79	7	33	93.5	10.2
17.78	2	41	95.4	11.4
16.07	8	41	95.4	12.6
17.01	4	42	95.8	13.4
12.49	14	45	96.5	11.8
16.91	7	46	96.6	11.1
17.83	2	51	97.8	11.4
17.29	2	61	0.2	13.1
17.91	2	63	0.7	13.2
16.60	7	66	1.5	12.6
14.18	12	72	3.0	12.2
14.38	11	73	3.1	11.6

21*s*—24*s*				
Mag.		α 14^m	x	y
		s	′	′
18.33	2	13	3.2	12.0
17.97	2	14	3.3	11.2
13.30	13	19	4.6	10.4
14.34	12	27	6.5	10.8

25 prec. + $79^s.5$, − 7′ 55″

14^h Area 130. Center for 1900: 14^h 8^m − 15° 10′ (20′ × 20′) − 15°

1—30				
Mag.		α 7^m	x	$y-10'$
		s	′	′ ″
17.80	3	6.4	87.05	10 39
17.99	1	6.6	87.10	3 02
16.25	1	6.6	87.11	18 59
17.47	3	7.8	87.39	5 51
16.00	1	7.9	87.44	17 54
17.89	3	8.0	87.46	10 54
17.99	1	8.0	87.46	2 07
16.49	1	8.3	87.56	17 08
15.44	10	8.7	87.60	3 21
14.09	1	9.1	87.69	1 46
18.11	1	9.3	87.74	6 55
17.29	3	9.4	87.77	13 22
17.20	3	10.3	87.99	2 36
17.99	1	10.4	88.03	16 58
17.98	3	12.1	88.43	7 01
17.57	3	12.3	88.47	10 59
17.63	1	13.0	88.67	19 12
16.78	9	13.9	88.87	4 02
17.99	1	13.9	88.90	18 06
16.74	9	14.3	88.97	8 36
16.67	9	15.1	89.16	2 32
18.00	3	15.4	89.22	6 58
16.31	1	15.4	89.26	19 59
15.26	10	15.6	89.28	2 34
16.79	8	15.9	89.34	2 23
17.63	3	16.0	89.39	15 11
18.00	3	16.5	89.50	7 59
17.70	3	17.1	89.64	13 25
18.11	1	17.3	89.68	6 33
17.20	3	17.5	89.73	6 18

31—60				
Mag.		α 7^m	x	$y-10'$
		s	′	′ ″
18.15	2	17.6	89.75	13 32
12.58w	16	17.8	89.81	3 31
15.36	10	18.0	89.86	2 07
14.95	4	18.1	89.88	0 42
18.18	2	19.4	90.20	13 40
14.30	7	19.7	90.28	0 43
18.16	3	20.0	90.34	11 05
17.31	3	20.4	90.42	3 43
16.53	9	20.5	90.44	0 55
17.49	3	21.4	90.67	7 38
15.64	9	21.8	90.78	8 22
18.06	3	21.9	90.80	13 33
18.06	3	23.2	91.09	10 37
16.81	9	23.7	91.23	10 29
17.51	1	23.9	91.30	19 58
17.56	3	24.3	91.41	18 19
18.11	1	24.7	91.47	10 58
17.76	3	25.1	91.57	10 11
16.28	9	25.1	91.57	9 15
18.12	3	25.2	91.60	14 33
16.88	8	25.6	91.69	4 36
17.50	3	25.6	91.71	10 33
17.96	3	25.7	91.73	6 52
15.66	9	26.8	91.98	3 54
16.36	9	26.7	91.98	16 29
15.53	10	27.5	92.14	11 03
16.53	9	28.9	92.51	16 39
17.35	3	29.1	92.56	13 28
14.66	12	30.0	92.75	11 43
16.78	9	30.0	92.76	13 05

61—90				
Mag.		α 7^m	x	$y-10'$
		s	′	′ ″
14.75	12	30.2	92.81	1 08
16.85	8	30.5	92.87	6 04
16.88	9	30.8	92.96	8 19
17.00	7	31.2	93.06	4 32
17.50	3	31.8	93.21	19 46
16.00	9	32.4	93.32	8 39
17.28	3	32.6	93.37	14 47
17.64	3	33.1	93.52	17 53
16.68	9	33.4	93.58	5 01
16.69	9	33.9	93.71	0 06
17.56	3	34.6	93.88	2 54
15.28	10	34.6	93.88	5 19
16.82	8	35.8	94.15	3 37
16.72	9	35.8	94.16	1 44
17.88	3	36.6	94.36	18 07
17.97	3	36.8	94.41	15 55
17.45	3	37.8	94.64	14 15
16.39	9	38.2	94.75	16 21
15.37	9	39.1	94.97	15 06
14.54	13	39.4	95.02	6 33
17.80w	2	40	95.1	0 12
17.01	5	40.1	95.20	0 54
17.66	3	40.1	95.20	13 11
13.63w	14	40.2	95.23	10 37
18.16	3	40.3	95.26	3 53
16.51	9	40.4	95.27	5 01
18.18	3	40.5	95.29	2 54
15.93	9	40.5	95.31	0 52
18.31	3	40.9	95.38	10 29
14.30	13	41.2	95.46	14 03

91—120				
Mag.		α 7^m	x	$y-10'$
		s	′	′ ″
18.11?	1	41.7	95.57	6 51
18.05?	1	42.0	95.66	6 50
16.31	9	42.0	95.66	10 01
17.96	3	42.2	95.71	16 39
17.70	3	42.8	95.86	12 19
18.14	3	43.6	96.04	2 07
15.19	9	44.4	96.24	11 47
17.27d	1	44.4	96.25	19 40
12.17w	16	44.6	96.27	12 06
16.81	9	44.8	96.32	11 37
17.18	4	45.0	96.38	8 02
9.04w	7	45.8	96.57	9 21
18.07	2	45.8	96.58	19 09
16.26	9	45.9	96.60	17 14
13.78w	13	46.5	96.75	3 07
16.70w	7	47	96.8	3 00
17.98	3	47.0	96.85	0 04
17.36	3	47.0	96.86	13 42
18.52	3	47.0	96.86	9 55
10.25w	13	47.6	97.00	8 20
16.77	8	48.0	97.11	17 50
17.10	5	48.7	97.27	11 05
16.72	9	49.0	97.35	5 21
17.72	3	49.8	97.54	13 29
18.55	3	51.9	98.05	8 43
18.18	3	52.3	98.16	15 45
17.72	3	52.4	98.17	5 58
18.14	3	53.0	98.30	4 46
16.68	9	54.5	98.67	15 11
15.36	10	54.7	98.73	2 47

121—150				
Mag.		α 7^m	x	$y-10'$
		s	′	′ ″
13.00w	15	54.8	98.76	17 29
17.87d	1	55.0	98.79	4 57
18.24	3	55.1	98.83	5 40
16.92	8	55.2	98.85	4 50
17.60	3	56.0	99.03	1 10
16.88	5	58.1	99.56	6 33
17.90	3	58.4	99.61	10 19
17.42	3	59.3	99.82	14 23
16.97	8	59.8	99.95	8 58
16.50	9	60.7	0.18	2 30
17.63	2	61.9	0.44	8 57
15.49	9	61.9	0.45	11 12
17.39	3	62.4	0.57	5 33
17.76	3	62.5	0.61	9 52
11.93w	16	62.8	0.67	7 18
16.54	9	62.9	0.71	0 09
17.39	3	63.1	0.76	18 48
16.64	8	63.6	0.88	15 45
17.63	3	64.3	1.05	5 43
16.48	9	65.4	1.29	0 42
18.11	1	65.5	1.33	4 11
16.63	7	65.6	1.34	18 15
17.60	2	65.7	1.38	1 11
15.10	10	66.1	1.47	14 00
17.76	3	66.3	1.52	16 56
18.00	3	66.3	1.52	2 17
18.14	3	66.4	1.55	9 38
15.76	9	66.9	1.66	15 15
17.37	3	67.3	1.77	12 42
16.79w	7	68	1.8	16 12

25 prec. + $81^s.5$, − 7′ 5″

14^{h} Area 130 − 14°, − 15°

151—170			
Mag.	α 8^{m}	x	y−10′
	s	′	′ ″
16.37 1	7.7	1.84	19 15
18.16 3	7.8	1.86	10 23
16.11 9	8.1	1.94	1 48
13.44w14	8.1	1.95	4 15
17.77 3	9.0	2.17	16 40
14.63 12	10.5	2.53	16 15
17.77 3	10.5	2.53	9 18
18.00 3	10.8	2.59	3 21
17.83 3	11.1	2.67	10 48
14.82 12	11.2	2.68	4 12
17.94 3	11.2	2.69	1 53
16.98 4	11.4	2.75	6 23
15.36 9	11.5	2.77	15 16
18.10 2	12.2	2.95	14 40
18.17 1	12.8	3.09	7 21
15.28 1	13.2	3.18	19 44
17.34 3	13.9	3.33	10 09
16.82 4	14.0	3.37	17 14
17.99 1	14.5	3.51	19 04
17.42 3	15.0	3.63	17 48

171—190			
Mag.	α 8^{m}	x	y−10′
	s	′	′ ″
17.57 1	15.2	3.66	18 23
16.80 6	15.2	3.66	13 22
18.05 1	16.0	3.87	0 50
18.16 3	17.0	4.11	8 10
17.09 3	17.4	4.21	14 47
18.08 3	17.9	4.32	13 11
17.56 3	17.9	4.33	6 59
14.25 13	18.0	4.34	6 27
16.68 9	18.5	4.44	15 30
18.06 3	19.2	4.65	11 46
17.73 2	19.4	4.68	16 08
14.71 12	19.5	4.71	12 05
17.85 3	19.6	4.72	2 53
16.79 1	20.3	4.89	18 37
17.39 1	21.4	5.15	18 26
17.15 3	21.6	5.22	3 47
17.75 1	22.6	5.46	17 27
13.39h 1	22.7	5.47	19 24
18.01 3	23.1	5.58	6 16
15.76 1	23.9	5.77	2 03

191—205			
Mag.	α 8^{m}	x	y−10′
	s	′	′ ″
17.54 3	24.1	5.83	3 49
18.05 1	24.3	5.88	14 01
16.49 1	24.6	5.95	1 02
16.97 1	24.6	5.95	17 37
16.73 1	24.7	5.98	2 10
17.99 3	25.4	6.13	7 11
17.66 3	25.6	6.18	7 22
16.65 9	26.0	6.28	6 48
18.00 3	26.9	6.50	8 12
16.34 9	27.1	6.56	13 27
14.09 1	27.5	6.62	19 52
15.79 9	27.6	6.67	7 42
17.03 1	28.2	6.80	17 43
16.49 1	28.4	6.86	15 44
16.47 9	28.6	6.90	5 11

1s—20s			
Mag.	α 7^{m}	x	y−70′ y−10′
	s	′	′
17.20 2	2	85.9	6.4
16.40 8	4	86.6	12.2
16.26 8	5	86.9	7.2
17.54 2	34	93.8	20.4
16.62 8	36	94.2	20.4
17.22 2	38	94.8	20.7
17.80 2	39	94.9	20.1
17.43 2	41	95.3	20.6
17.90 2	41	95.4	20.0
16.64 8	45	96.3	58.7
16.63 8	46	96.7	20.4
16.63 8	50	97.6	59.8
17.18 2	51	97.9	59.5
15.78 8	52	98.2	59.8
12.59 15	56	99.2	58.6
16.31 8	60	0.1	59.6
17.96 2	61	0,2	59.4
17.62 2	67	1.6	59.8
14.16 12	90	7.3	5.9
16.17 8	91	7.5	11.7

21s—22s			
Mag.	α 8^{m}	x	y−10′
	s	′	′
15.29 10	31	7.6	10.6
17.44 2	32	7.8	11.2

25 prec. $+ 81^{\mathrm{s}}.5$, $- 7' 5''$

15^{h} Area 131. Center for 1900: $15^{\mathrm{h}}\ 11^{\mathrm{m}}$ − 15° 10′ (15′ × 15′) − 15°

1—30			
Mag.	α 10^{m}	x	y−10′
	s	′	′ ″
17.87 1	56.1	99.06	9 12
17.48 3	56.1	99.06	7 09
18.87 1	56.1	99.06	13 03
18.45 1	56.4	99.13	9 26
18.12 1	57.3	99.34	10 28
13.40 13	57.8	99.47	15 03
17.54 2	57.9	99.51	13 37
18.70 1	58.3	99.59	18 31
16.35 7	58.4	99.63	15 03
18.12 1	58.5	99.65	9 05
15.97 9	59.1	99.77	13 42
18.62 1	59.2	99.79	19 30
18.12 1	59.6	99.90	15 44
17.31 3	59.7	99.93	15 24
16.53 7	59.9	99.97	15 28
17.94 1	59.9	99.97	13 39
18.96 1	60.1	0.02	12 27
16.45 3	60.1	0.03	11 01
17.60 3	60.2	0.05	10 32
16.66 3	60.8	0.21	14 16
16.26 4	61.0	0.26	18 00
18.96 1	61.5	0.37	13 29
17.63 3	61.6	0.38	8 06
18.78 1	61.8	0.43	15 51
17.64 3	62.2	0.52	7 57
18.87 1	62.2	0.52	9 23
18.12 1	63.1	0.75	17 09
18.12 1	63.1	0.75	7 04
19.04 1	63.8	0.92	13 43
18.54 1	64.1	1.01	14 31

31—60			
Mag.	α 11^{m}	x	y−10′
	s	′	′ ″
16.65 3	5.0	1.19	7 30
16.07 7	5.1	1.23	10 04
17.94 1	5.5	1.33	12 06
17.79 3	5.7	1.37	11 07
17.50 3	6.2	1.51	7 45
18.70 1	6.8	1.64	10 32
16.46 5	6.9	1.67	6 44
17.78 1	7.2	1.74	6 16
16.49 3	7.2	1.75	8 19
17.43 3	7.2	1.75	19 37
18.78 1	7.3	1.77	8 13
16.90 3	7.6	1.83	11 37
15.22 10	7.8	1.87	9 03
15.65 9	8.1	1.96	12 20
18.38 1	8.4	2.02	11 45
18.12 1	8.4	2.03	19 48
16.36 6	8.7	2.09	16 53
17.66 3	8.7	2.10	14 22
17.78 1	8.7	2.11	6 20
17.00 3	8.8	2.12	19 51
17.87 1	9.3	2.26	9 20
17.59 3	10.4	2.51	7 42
18.45 1	11.3	2.73	19 56
16.83 3	11.4	2.74	9 56
18.12 1	11.8	2.85	17 04
16.49 6	12.0	2.90	14 06
17.17 3	12.0	2.91	7 37
17.31 3	12.2	2.95	9 18
18.70 1	12.2	2.95	5 52
18.29 1	12.2	2.95	9 37

61—90			
Mag.	α 11^{m}	x	y−10′
	s	′	′ ″
18.62 1	12.4	3.00	11 32
18.87 1	12.7	3.06	16 42
17.74 3	13.4	3.25	14 11
15.56 10	13.6	3.28	17 06
12.63w15	13.7	3.29	19 03
17.94 1	14.0	3.38	5 56
17.28 3	14.7	3.56	8 52
18.29 1	15.1	3.64	11 23
16.88 3	16.1	3.88	18 06
18.87 1	16.1	3.88	15 30
18.38 1	17.4	4.20	8 31
17.87 1	17.6	4.26	7 58
18.87 1	17.9	4.33	14 11
18.20 1	18.0	4.34	15 21
17.71 3	18.1	4.36	16 07
17.93 3	18.3	4.42	10 19
18.20 1	18.5	4.47	13 02
18.12 1	18.6	4.51	7 42
18.45 1	18.7	4.52	8 04
18.02 3	18.9	4.56	10 00
15.22 9	18.9	4.58	13 18
18.20 1	19.0	4.61	8 48
18.03 1	19.5	4.69	5 16
17.92 3	19.6	4.72	16 34
18.38 1	20.1	4.84	8 35
18.19 2	20.6	4.97	14 11
18.53 2	20.7	5.00	5 12
17.75 3	21.3	5.12	19 01
17.57 3	21.5	5.20	6 59
18.11 2	21.8	5.28	5 14

91—120			
Mag.	α 11^{m}	x	y−10′
	s	′	′ ″
17.87 1	21.9	5.30	7 54
18.70 1	21.9	5.31	7 06
17.94 1	22.0	5.32	12 21
18.20 1	22.0	5.33	10 46
15.92 8	22.2	5.36	16 49
16.30 7	22.2	5.37	12 23
16.28 8	22.5	5.43	18 15
18.00 3	22.6	5.44	9 57
16.88 3	22.8	5.51	8 40
18.62 1	22.9	5.53	7 09
18.87 1	22.9	5.53	11 10
17.63 3	22.9	5.53	11 32
15.18 9	23.0	5.55	19 32
18.78 1	23.6	5.67	14 03
15.74 7	23.9	5.74	15 20
18.04 3	23.9	5.74	16 04
18.70 1	24.3	5.84	19 17
16.70 5	24.3	5.85	15 30
15.39 8	24.5	5.93	12 52
17.96 3	25.0	6.04	13 49
15.87 9	25.4	6.13	7 08
17.87 1	25.9	6.24	15 01
13.06 12	25.9	6.24	12 26
16.69 3	25.9	6.25	10 55
8.86w 7	**26.5**	**6.40**	**12 32**
13.05 16	26.8	6.47	7 34
17.20 3	27.4	6.61	17 34
17.94 1	27.7	6.67	17 47
12.11w15	28.0	6.74	16 15
18.70 1	28.5	6.88	17 16

121—150			
Mag.	α 11^{m}	x	y−10′
	s	′	′ ″
17.07 3	29.2	7.04	7 01
17.05 3	29.2	7.04	13 19
18.70 1	30.0	7.24	15 43
16.63 5	30.3	7.33	11 35
18.78 1	30.9	7.46	11 43
16.00 8	31.2	7.53	17 56
18.70 1	31.3	7.58	16 56
17.68 3	32.4	7.80	19 44
16.34 3	32.6	7.84	15 11
12.82 16	32.6	7.85	16 16
17.78 1	32.6	7.87	9 21
16.33 7	32.6	7.87	5 26
18.70 1	33.2	8.03	8 24
18.70 1	33.3	8.05	8 58
18.20 1	33.5	8.07	19 18
17.12 3	33.5	8.08	18 15
15.03 9	33.5	8.08	5 38
14.55 12	33.7	8.12	16 27
17.47 3	33.8	8.14	17 04
17.78 1	33.9	8.18	16 51
17.55 3	35.3	8.52	5 04
18.70 1	35.4	8.55	13 20
18.62 1	36.0	8.67	19 13
17.78 1	36.6	8.83	16 10
16.56 3	36.6	8.83	19 20
17.27 3	37.0	8.93	18 16
17.20 3	37.3	9.01	6 47
18.62 1	37.6	9.07	6 33
18.29 1	37.9	9.13	15 07
18.70 1	38.2	9.23	14 57

25 prec. $+ 83^{\mathrm{s}}.3$, $- 5' 36''$

15^h Area 131 − 15°

151—190				191—214				1s—40s				41s—80s				81s—85s			
Mag.	α 11^m	x	$y-10'$	Mag.	α 11^m	x	$y-10'$	Mag.	α 10^m	x	$y-10'$	Mag.	α 11^m	x	$y-10'$	Mag.	α 12^m	x	$y-10'$
	s	′	′ ″		s	′	′ ″		s	′	′		s	′	′		s	′	′
17.46 3	38.4	9.28	11 53	16.34 5	48.5	11.72	7 56	16.48 2	43	95.8	7.8	15.04 8	33	7.8	20.6	14.75 8	9	16.6	12.6
17.51 3	38.7	9.32	15 32	17.60 1	48.6	11.75	8 19	17.35 2	43	95.9	17.4	14.86 9	35	8.4	22.0	14.81 9	13	17.6	10.9
17.44 3	38.7	9.34	7 25	18.29 1	49.1	11.85	8 05	11.94 14	43	96.0	10.2	16.28 2	36	8.8	4.4	16.50 2	14	17.8	10.3
16.24 8	38.7	9.36	13 57	18.12 1	49.7	12.00	7 42	17.59 2	44	96.1	9.0	16.59 2	37	9.0	1.8	16.25 2	14	17.8	14.2
14.73 12	39.1	9.45	5 59	16.62 3	49.8	12.02	10 49	17.35 2	45	96.3	9.3	17.49 2	38	9.0	21.8	16.75 2	14	17.8	14.3
17.46 3	39.8	9.59	15 58	16.92 3	49.8	12.03	11 06	16.35 2	45	96.4	18.0	17.65 2	39	9.5	20.2				
18.20 1	39.9	9.62	17 28	15.50 9	49.9	12.06	10 55	17.45 2	47	96.8	10.8	15.69 7	40	9.6	3.2				
17.81 3	40.3	9.71	16 52	17.87 1	50.0	12.07	11 34	17.37 2	48	97.0	7.9	16.33 2	41	9.8	21.6				
15.64 9	40.3	9.72	16 34	18.45 1	50.6	12.21	18 01	13.34 10	49	97.2	12.8	16.85 2	41	9.9	2.9				
18.29 1	40.3	9.73	12 34	16.69 3	50.8	12.27	7 10	16.17 6	49	97.3	15.8	17.09 2	43	10.4	2.8				
16.64 5	40.4	9.75	10 11	14.53 12	51.3	12.36	15 28	16.81 2	49	97.4	6.1	17.15 2	43	10.4	5.0				
17.45 3	40.4	9.75	17 03	17.91 2	52.1	12.55	17 08	17.27 2	50	97.5	13.7	16.46 2	47	11.4	2.4				
17.65 3	40.4	9.76	5 55	16.40 3	52.6	12.71	5 44	15.48 8	51	97.8	6.4	16.71 2	48	11.6	22.5				
17.69 1	40.5	9.77	6 56	17.91 2	53.2	12.83	17 04	16.49 5	51	97.8	14.2	16.25 2	49	11.8	20.4				
18.62 1	40.7	9.81	18 16	12.62 16	53.2	12.84	14 40	16.68 2	51	97.8	14.4	15.01 9	50	12.1	3.7				
17.17 1	40.8	9.83	17 45	16.51 3	53.3	12.87	10 43	17.47 2	51	97.8	17.6	14.85 9	52	12.6	3.4				
16.72 3	41.4	9.98	16 42	16.83 3	54.0	13.05	8 50	15.93 6	53	98.2	5.8	16.57 2	54	12.9	21.6				
17.94 1	41.4	10.00	12 53	17.78 1	54.5	13.15	19 25	10.14 8	53	98.3	13.0	16.93 2	56	13.4	21.5				
17.56 3	41.5	10.03	14 14	18.45 1	54.8	13.24	10 02	17.38 2	55	98.7	8.6	16.79 2	58	14.0	8.0				
17.93 3	41.9	10.13	12 19	16.53 3	55.7	13.44	12 09	16.43 2	55	98.7	14.6	16.05 6	59	14.2	15.0				
15.99 7	42.1	10.18	11 43	17.87 1	56.4	13.62	13 50	16.93 2	55	98.7	16.3	16.77 2	59	14.3	13.2				
17.69 1	42.1	10.18	9 27	17.78 1	57.1	13.79	9 00	15.43 7	55	98.7	19.4	15.85 7	61	14.7	15.3				
18.54 1	42.4	10.26	13 19	17.60 1	57.1	13.81	12 59	16.27 6	64	1.0	4.2	13.63 11	61	14.8	4.9				
14.08 13	42.7	10.31	17 43	18.29 1	57.8	13.97	5 20	16.88 2	65	1.2	4.4	16.18 6	62	14.8	16.0				
18.62 1	43.8	10.57	14 25					15.65 7	65	1.2	21.4	15.10 8	62	14.8	17.4				
18.45 1	44.5	10.76	5 44					15.44 8	67	1.7	4.2	17.31 2	63	15.2	7.2				
15.76 10	44.9	10.85	8 43					16.34 6	68	1.9	4.4	15.93 7	63	15.2	12.1				
17.58 3	44.9	10.86	6 03					11.24 10	70	2.4	21.4	17.26 2	63	15.2	14.4				
17.41 3	44.9	10.86	7 34					17.00 2	71	2.6	4.2	12.10 15	64	15.4	13.8				
18.45 1	45.1	10.91	6 02					16.51 2	72	2.8	2.2	16.32 6	64	15.4	17.2				
17.84 3	45.5	11.00	9 59					16.54 2	72	2.8	3.2	16.91 2	66	15.8	7.6				
18.45 1	45.7	11.05	17 31					15.43 7	72	2.8	22.3	15.48 7	65	15.8	8.1				
18.54 1	46.0	11.12	17 36					17.43 2	75	3.7	22.2	16.78 2	66	15.8	8.6				
17.52 3	46.2	11.16	11 34					16.81 2	81	5.2	2.8	17.03 2	66	15.8	15.6				
18.62 1	46.6	11.24	12 49					15.21 7	83	5.5	20.6	17.17 2	66	16.0	7.4				
17.18 3	46.8	11.31	10 55					17.37 2	84	5.7	21.6	17.08 2	66	16.0	7.7				
17.78 1	46.9	11.33	9 03					17.41 2	84	5.8	23.1	15.91 7	67	16.0	9.0				
14.37 12	47.0	11.35	5 00					16.77 2	84	5.9	20.8	17.74 2	66	16.0	14.8				
17.35 3	47.2	11.39	7 21					16.97 2	86	6.3	2.4	15.46 7	67	16.2	17.6				
18.04 2	47.5	11.45	17 24					15.12 8	91	7.4	21.5	16.35 2	68	16.4	11.4				

25 prec. + 83^{s}.3, − 5′ 36″

16^h Area 132. Center for 1900: 16^h 12^m − 15° 0′ (15′ × 15′) − 14°, − 15°

1—10				11—20				21—30				31—40				41—50			
Mag.	α 11^m	x	$y-60'$ y	Mag.	α 11^m	x	$y-60'$ y	Mag.	α 11^m	x	$y-60'$ y	Mag.	α 11^m	x	$y-60'$ y	Mag.	α 11^m	x	$y-60'$ y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
18.03 3	10.6	88.07	9 51	16.02 8	13.1	88.67	4 12	16.41 6	14.6	89.02	6 27	16.59 4	17.4	89.71	3 12	16.45 8	19.5	90.22	8 14
17.45 1	11.0	88.18	56 08	17.90 3	13.2	88.71	58 16	16.74 3	14.7	89.06	56 30	12.33 15	17.6	89.76	9 50	18.08 3	19.7	90.27	55 58
17.98 3	11.1	88.19	0 33	16.69 3	13.4	88.74	58 55	17.17 3	14.8	89.08	1 08	18.21 3	18.1	89.87	1 49	17.82 3	20.0	90.35	7 45
15.60 9	11.1	88.21	8 18	17.95 3	13.4	88.76	57 30	18.02 2	14.9	89.10	5 30	14.32wi 11	18.3	89.93	5 55	17.02d 1	20.1	90.36	57 59
18.01 3	11.5	88.28	8 03	16.48 3	13.6	88.80	9 06	18.04 3	15.2	89.17	8 00	16.52 5	18.6	90.00	56 58	18.23 3	20.1	90.37	8 01
18.14 3	11.5	88.28	8 42	16.22 8	13.7	88.83	2 11	15.31 1	15.2	89.17	55 46	18.12 3	18.6	90.01	2 35	18.08 2	20.3	90.38	4 23
18.08 3	11.7	88.33	3 11	17.48 3	13.9	88.88	2 21	17.88 1	15.7	89.30	59 48	15.90 8	19.0	90.09	56 52	18.16 3	20.9	90.56	6 00
17.78 1	12.0	88.41	55 52	16.08 8	14.0	88.89	59 44	17.75 3	16.1	89.40	4 28	15.93 8	19.0	90.09	56 09	17.01 3	21.1	90.61	6 48
17.32 3	12.2	88.44	9 55	16.85 3	14.3	88.96	9 25	17.84 1	16.9	89.61	55 53	14.65 12	19.2	90.14	55 33	16.34 8	21.3	90.64	7 59
18.06 3	12.7	88.58	1 25	15.39 8	14.5	89.00	9 50	15.98 8	17.3	89.68	58 14	16.38 4	19.4	90.21	6 58	16.96 3	21.4	90.68	3 20

25 prec. + 84^{s}.8, − 3′ 48″

51—90				91—130				131—170				171—208			
Mag.	α 11^{m}	x	$y-60'$ / y	Mag.	α 11^{m}	x	$y-60'$ / y	Mag.	α 11^{m}	x	$y-60'$ / y	Mag.	α 11^{m}	x	$y-60'$ / y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.97 3	21.7	90.74	56 32	15.92: 1	33.7	93.65	7 58	18.15 3	46.5	96.74	9 53	17.84 3	59.6	99.89	57 30
17.69 3	21.7	90.75	4 56	18.29 3	34.1	93.74	7 30	17.33 3	47.5	96.97	7 45	16.19 8	59.7	99.92	1 38
16.76 3	21.7	90.76	9 47	17.62 3	34.4	93.83	3 39	17.99 3	47.8	97.06	6 25	18.19 3	59.8	99.96	6 40
16.52 3	21.8	90.77	1 20	15.75 8	34.5	93.86	59 10	16.89 3	48.1	97.13	55 22	16.82 6	59.9	99.97	56 36
13.52 13	22.3	90.90	57 58	17.69 3	34.8	93.92	56 45	18.12 3	48.3	97.17	55 39	17.94 2	60.7	0.17	4 26
16.46 4	22.4	90.93	59 14	16.43w 4	35.5	94.08	4 27	17.84 3	49.4	97.44	4 28	16.30 6	60.8	0.19	56 44
17.28 3	22.7	91.01	1 50	18.28 3	35.7	94.12	5 08	17.36 3	50.1	97.60	5 17	15.26d 1	61.4	0.35	0 05
16.68 3	23.5	91.17	59 04	13.16 13	35.8	94.16	6 25	17.90 3	50.5	97.70	59 19	17.02* 2	62	0.4	57 36
14.82 10	24.0	91.30	7 02	16.48 3	36.1	94.22	6 38	17.18 3	51.0	97.82	55 29	17.36 1	62.1	0.51	55 50
17.74 3	24.1	91.32	58 16	17.60 3	36.3	94.27	0 10	16.77 3	51.4	97.93	7 42	17.23 3	62.7	0.65	8 49
16.45 5	25.1	91.58	4 54	17.22 3	36.3	94.28	57 40	16.58 5	51.5	97.96	55 03	17.28 3	62.7	0.66	8 17
17.18 3	25.2	91.60	57 30	16.84 3	36.6	94.35	4 54	17.65 3	51.6	97.98	8 19	16.45 3	63.6	0.87	7 05
18.05 3	26.0	91.79	58 04	17.14 3	36.8	94.39	5 28	17.04 3	51.8	98.02	7 10	15.24 2	64.7	1.13	55 45
13.00 13	26.3	91.85	57 02	15.55 9	37.1	94.48	59 34	17.92 2	52.1	98.10	58 30	17.83 3	65.0	1.19	57 59
17.60 3	26.5	91.90	59 05	18.16 3	37.2	94.50	58 57	18.04 3	53.0	98.31	1 25	17.71 3	65.2	1.24	4 21
11 80w 14	26.8	91.98	56 43	17.87 2	37.3	94.52	8 04	18.05 3	53.5	98.42	6 14	17.89 3	65.3	1.27	6 45
17 77 3	27.9	92.26	9 55	18.36 3	37.6	94.59	4 44	18.28 2	53.6	98.45	4 29	16.62 3	65.5	1.33	57 13
15.83 8	28.2	92.33	0 29	16.43 6	37.6	94.59	58 02	18.06 3	53.6	98.46	3 46	17.39 3	65.6	1.34	56 12
17.67 3	28.4	92.37	9 00	18.03 3	38.7	94.84	59 27	16.68 4	53.7	98.48	57 34	14.65 11	65.8	1.39	9 56
18.17 3	28.9	92.49	55 05	17.25 3	39.1	94.96	1 32	18.16 3	54.1	98.58	6 05	16.26 6	66.1	1.47	7 30
17..81 3	29.8	92.69	57 49	16.68 5	39.8	95.12	6 08	16.64: 1	54.4	98.65	1 35	18.05 3	66.8	1.65	7 07
17..25 3	30.1	92.77	6 38	17.77 3	39.8	95.12	5 25	16.99 3	54.4	98.66	1 57	17.89 2	67.1	1.73	58 42
16..08 8	30.1	92.78	55 23	16.81 3	39.8	95.13	8 50	17.54 3	54.8	98.75	1 24	17.40 3	68.7	2.10	58 53
17..99 3	30.2	92.79	9 13	17.32 3	40.2	95.22	7 26	17.76 2	54.8	98.76	2 24	17.50 3	68.7	2.11	4 02
17..99 3	30.3	92.83	56 32	8.10w 5	40.8	95.37	4 51	15.59 9	54.9	98.77	3 44	17.89 3	69.3	2.26	5 48
16 55 5	30.5	92.88	56 07	17.99 3	41.4	95.51	3 05	16.93d 1	54.9	98.77	8 00	16.68 4	70.0	2.42	7 17
16 30 6	30.8	92.94	4 42	12.27 15	42.4	95.75	5 36	16.92 3	55.2	98.86	9 45	17.45 3	70.0	2.43	58 04
17 90 2	30.8	92.96	57 32	16.44 3	42.5	95.77	1 40	16.12 5	56.7	99.19	56 43	17.59 1	70.3	2.49	56 53
17 42 3	30.9	92.97	58 52	17.24 3	42.8	95.86	7 37	16.54 6	56.8	99.22	8 52	14.48 8	70.5	2.53	7 09
17 65 3	31.0	92.99	0 00	17.50 3	43.1	95.93	59 35	13.35 13	56.9	99.25	9 52	17.74 1	70.5	2.53	56 32
16.80 3	31.4	93.11	57 04	16.81 3	43.4	96.00	55 22	17.27 3	56.9	99.25	58 43	17.75 3	70.7	2.58	0 30
17.17 3	31.8	93.19	6 31	18.16 2	43.5	96.02	7 22	17.89 3	57.6	99.43	2 36	17.09 3	71.2	2.69	58 27
16.98 3	31.8	93.20	8 45	16.41 5	43.5	96.03	8 07	17.11 3	57.7	99.44	56 26	17.78 1	71.3	2.72	55 09
17.92 3	31.8	93.21	57 27	18.01 3	44.0	96.13	8 57	17.02 3	57.9	99.50	55 57	17.95 3	71.5	2.77	4 46
17.88 2	32.2	93.28	0 06	17.93 3	44.1	96.16	57 32	18.04 3	57.9	99.51	9 21	16.80 3	71.7	2.83	0 39
18.22 3	32.4	93.32	7 31	18.23 3	44.5	96.26	1 27	18.07 3	58.1	99.55	3 21	16.46 1	72.0	2.90	55 12
17.44 3	32.6	93.37	2 41	15.13 10	44.9	96.35	3 32	17.89 3	58.2	99.58	1 12	17.10 3	72.2	2.94	0 50
16.63 3	32.8	93.42	55 20	16.89 4	45.6	96.53	5 02	17.11 3	58.2	99.58	4 12	17.71 3	72.3	2.97	0 02
18.12 3	33.5	93.60	56 56	18.23 3	45.8	96.58	8 24	17.75 3	58.5	99.65	1 45				
14.37 11	33.6	93.63	57 38	17.91 3	46.3	96.70	55 12	17.98 2	59.5	99.87	4 48				

25 prec. + 84^{s}.8, − 3′ 48″

16h Area 132. Supplementary Stars − 15°

1s—10s				11s—20s				21s—30s				31s—40s				41s—50s			
Mag.	α 10^{m}	x	y	Mag.	α 11^{m}	x	y	Mag.	α 11^{m}	x	y	Mag.	α 11^{m}	x	y	Mag.	α 11^{m}	x	y
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
16.31 3	58	85.1	4.6	18.22 2	4	86.6	4.4	17.35 2	7	87.2	10.3	17.67 2	10	87.9	6.6	16.40 7	16	89.4	11.6
16.69 2	59	85.2	4.1	16.47 7	4	86.6	4.7	15.23 8	7	87.3	1.8	16.93 2	10	87.9	8.6	17.70 2	16	89.4	13.4
17.94 2	60	85.6	2.8	18.05 2	4	86.6	10.5	17.68 2	7	87.3	3.6	16.76 2	11	88.1	12.2	17.76 2	18	89.9	13.4
16.95 2	60	85.6	6.8	17.68 2	5	86.8	6.4	17.78 2	8	87.4	6.0	16.87 2	11	88.2	11.4	14.11 10	20	90.4	10.5
17.37 2	61	85.7	9.1	17.98 2	6	86.9	0.6	17.83 2	8	87.5	9.9	16.88 2	12	88.4	13.0	17.68 2	21	90.6	11.4
18.13 2	62	85.9	0.0	18.25 2	6	86.9	7.2	16.59 2	9	87.6	3.9	17.15 2	13	88.7	11.2	17.95 2	21	90.6	12.2
18.27 2	62	86.0	2.1	18.22 2	6	87.0	10.0	17.47 2	9	87.6	11.4	18.33 2	15	89.2	10.3	17.97 2	22	90.8	11.0
17.81 2	62	86.1	8.6	16.51 4	7	87.1	2.4	18.40 2	9	87.7	6.7	17.67 2	15	89.2	12.8	16.10 7	22	90.9	11.2
15.99 7	63	86.3	6.2	17.85 2	7	87.2	0.8	16.11 6	9	87.7	12.2	18.11 2	16	89.4	10.4	16.89 2	24	91.2	13.2
17.35 2	64	86.4	9.8	16.61 2	7	87.2	7.2	15.61 7	10	87.9	4.4	16.64 2	16	89.4	10.8	17.65 2	24	91.2	14.6

25 prec. + 84^{s}.8,− 3′ 48″

16^{h} Area 132. Supplementary Stars − 14°, − 15°

51s—70s				71s—90s				91s—110s				111s—130s				131s—143s			
Mag.	α 11^{m}	x	$y-60'$ / y	Mag.	α 11^{m}	x	$y-60'$ / y	Mag.	α 11^{m}	x	$y-60'$ / y	Mag.	α 12^{m}	x	$y-60'$ / y	Mag.	α 12^{m}	x	$y-60'$ / y
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
17.57 2	25	91.5	10.3	16.99 2	36	94.2	13.6	16.34 5	48	97.0	15.3	17.87 2	1	0.3	13.3	16.69 2	17	4.2	59.6
17.29 2	25	91.6	10.2	17.42 2	36	94.3	54.9	16.85 2	49	97.3	12.3	17.73 2	3	0.8	10.7	16.42 3	18	4.4	10.0
17.95 2	26	91.8	10.1	16.47 2	36	94.3	13.2	16.63 2	49	97.4	10.0	15.90 7	4	0.8	12.4	14.22 10	19	4.6	0.0
15.70 7	26	91.8	11.8	17.97 2	39	94.8	11.6	16.87 2	50	97.5	11.1	16.75 2	4	0.9	13.6	16.67 2	19	4.6	0.6
15.78 7	27	92.0	14.6	17.09 2	39	94.9	54.3	17.07 2	50	97.6	13.0	17.00 2	4	1.0	10.2	18.23 2	19	4.6	6.0
16.47 2	29	92.4	14.0	15.89 7	40	95.1	11.2	16.21 7	50	97.7	14.6	15.86 7	7	1.6	11.7	14.03 10	19	4.6	9.6
16.46 5	30	92.7	12.4	16.36 5	40	95.2	15.2	16.91 2	51	97.8	54.8	17.81 2	7	1.8	13.2	17.95 2	19	4.7	7.6
17.83 2	30	92.8	54.9	17.13 2	41	95.4	11.0	16.80 2	51	97.8	10.8	17.84 2	10	2.3	11.8	16.33 3	20	4.9	6.6
17.58 2	31	93.0	11.2	17.31 2	41	95.5	14.4	18.27 2	52	98.0	13.3	18.01 2	10	2.4	10.2	15.72 7	20	4.9	7.2
17.72 2	31	93.0	11.6	16.90 2	42	95.7	12.8	13.20 12	54	98.4	12.8	17.51 2	12	3.0	11.6	15.41 7	22	5.2	4.8
15.30 8	31	93.1	10.5	17.35 2	43	95.8	12.3	16.48 2	53	98.4	14.6	17.53 2	13	3.0	11.8	16.34 3	22	5.4	7.6
18.00 2	32	93.2	12.6	16.59 2	43	96.0	54.3	17.90 2	55	98.9	13.9	16.60 2	13	3.1	8.8	17.31 2	24	5.8	4.9
17.88 2	32	93.3	14.3	17.84 2	44	96.0	12.4	17.77 2	56	99.1	11.6	17.29 2	13	3.2	9.6	17.70 2	25	6.0	4.5
16.54 5	34	93.6	12.4	16.67 2	44	96.0	13.8	17.93 2	56	99.1	12.2	16.48 2	14	3.3	57.8				
16.02 7	34	93.7	11.8	14.56 9	45	96.4	15.2	16.69 2	57	99.3	12.6	16.33 3	14	3.4	8.0				
16.04 7	34	93.8	15.2	9.87 8	46	96.6	12.0	16.84 2	60	99.9	12.6	16.29 5	14	3.4	10.0				
14.92 8	35	94.0	10.5	16.67 2	46	96.6	12.2	17.95 2	60	0.1	10.6	18.02 2	15	3.6	9.4				
18.40 2	35	94.0	14.0	18.19 2	46	96.6	13.0	16.66 2	61	0.2	11.4	17.78 2	16	3.9	59.1				
15.08 8	36	94.2	11.7	17.97 2	47	96.8	10.2	16.85 2	61	0.2	12.6	16.19 5	16	3.9	2.0				
13.66 11	36	94.2	12.0	17.19 2	47	96.9	10.9	16.20 7	61	0.2	13.6	17.66 2	17	4.0	0.6				

25 prec. + $84^{\mathrm{s}}.8$, − 3′ 48″

17^{h} Area 133. Center for 1900: 17^{h} 13^{m} − 15° 10′ (15′ × 15′) − 15°

1—30				31—60				61—90				91—120				121—150			
Mag.	α 12^{m}	x	$y-10'$	Mag.	α 12^{m}	x	$y-10'$	Mag.	α 12^{m}	x	$y-10'$	Mag.	α 12^{m}	x	$y-10'$	Mag.	α 12^{m}	x	$y-10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.88 2	10.4	88.02	7 26	17.74 3	11.8	88.34	3 01	18.43 1	13.4	88.76	2 29	18.61 1	14.9	89.09	5 24	17.84 3	16.3	89.44	0 02
18.87 1	10.5	88.04	7 45	17.35 3	12.0	88.39	8 01	18.78 1	13.6	88.79	6 38	18.87 1	14.9	89.09	4 38	16.31 7	16.3	89.44	6 02
18.69 1	10.5	88.06	12 27	18.87 1	12.0	88.41	6 51	16.57 3	13.6	88.81	0 17	18.43 1	14.9	89.09	0 58	16.53 5	16.3	89.45	9 27
18.69 1	10.5	88.06	10 30	18.78 1	12.1	88.42	10 19	18.52 1	13.7	88.82	8 15	17.65 3	15.0	89.13	13 35	16.64 3	16.3	89.45	9 31
18.78 1	10.6	88.07	11 31	17.73 3	12.2	88.44	4 23	18.14 2	13.7	88.82	5 15	17.91 1	15.1	89.14	14 43	18.69 1	16.4	89.47	12 50
18.78 1	10.6	88.07	7 53	15.77 7	12.2	88.45	13 10	17.94 3	13.7	88.83	1 40	18.78 1	15.1	89.15	12 05	18.69 1	16.4	89.47	11 02
18.87 1	10.7	88.10	5 44	17.52 3	12.2	88.46	9 37	18.78 1	13.8	88.84	11 48	17.91 1	15.1	89.16	13 29	17.94 2	16.5	89.50	12 00
18.69 1	10.7	88.11	11 55	18.78 1	12.3	88.47	10 09	17.13 3	13.8	88.84	12 19	18.43 1	15.1	89.16	10 23	17.13 3	16.5	89.50	13 12
17.88 2	10.8	88.12	8 44	17.15 3	12.3	88.48	5 01	16.34 7	13.8	88.85	10 13	17.41 3	15.1	89.16	12 39	18.87 1	16.5	89.51	3 50
17.77 3	10.8	88.13	3 09	17.76 3	12.5	88.52	1 08	17.90 2	13.8	88.85	7 05	17.53 3	15.1	89.16	14 11	18.78 1	16.7	89.54	11 49
17.92 2	10.9	88.14	1 09	18.87 1	12.5	88.53	5 38	18.87 1	13.8	88.85	9 01	18.17 1	15.4	89.23	10 04	17.82 1	16.7	89.56	13 15
17.79 3	10.9	88.15	0 21	18.52 1	12.8	88.60	14 20	18.78 1	13.9	88.87	11 39	18.61 1	15.4	89.23	2 43	18.69 1	16.9	89.60	13 21
15.76 9	10.9	88.15	6 23	18.04 2	12.8	88.61	6 43	17.48 3	13.9	88.88	13 14	18.78 1	15.4	89.23	5 46	17.53 3	16.9	89.60	13 29
18.78 1	10.9	88.16	10 08	18.17 1	12.9	88.63	2 40	18.87 1	14.1	88.93	2 11	18.78 1	15.6	89.27	5 09	18.26 1	17.1	89.64	7 14
18.69 1	11.0	88.18	13 20	18.87 1	12.9	88.63	6 03	18.61 1	14.2	88.94	6 56	18.87 1	15.6	89.28	0 17	18.09 1	17.2	89.66	12 49
18.78 1	11.1	88.20	9 49	18.07 2	13.0	88.64	5 00	18.78 1	14.2	88.95	5 49	18.87 1	15.6	89.28	0 41	17.92 3	17.2	89.66	5 42
18.61 1	11.1	88.21	14 10	17.91 1	13.0	88.64	6 18	17.89 3	14.2	88.95	5 59	16.45 5	15.8	89.32	9 18	18.87 1	17.2	89.66	4 35
18.87 1	11.2	88.22	7 32	17.68 3	13.0	88.64	13 35	18.78 1	14.2	88.95	8 54	17.22 3	15.8	89.32	10 26	18.87 1	17.2	89.66	0 09
18.34 1	11.2	88.22	1 00	18.09 1	13.0	88.66	12 17	18.26 1	14.2	88.95	4 33	17.98 2	15.8	89.33	1 00	18.02 2	17.2	89.67	3 33
17.43 3	11.2	88.23	2 04	17.94 2	13.0	88.66	11 30	18.87 1	14.3	88.96	9 31	16.90 3	15.8	89.33	10 14	18.96 1	17.3	89.68	4 30
18.61 1	11.3	88.24	3 47	17.90 2	13.0	88.66	8 44	18.78 1	14.3	88.96	11 49	16.22 7	15.9	89.34	10 39	16.69 3	17.3	89.69	9 52
18.07 2	11.3	88.24	8 17	18.52 1	13.1	88.68	11 14	16.05 9	14.4	88.99	4 21	16.97 3	15.9	89.34	8 02	18.01 2	17.4	89.71	0 55
17.90 2	11.3	88.25	12 12	17.00 3	13.1	88.68	12 27	18.87 1	14.5	89.00	8 43	16.89 3	15.9	89.34	9 13	16.79 3	17.5	89.72	1 41
17.25 3	11.3	88.25	13 11	18.26 1	13.1	88.68	6 03	16.44 7	14.5	89.01	6 28	16.74 3	15.9	89.34	5 23	17.41 3	17.5	89.73	2 52
18.78 1	11.3	88.25	4 48	18.34? 1	13.3	88.72	0 13	18.78 1	14.6	89.02	10 36	17.88 2	15.9	89.35	2 11	18.96 1	17.6	89.75	6 49
18.40 2	11.5	88.28	9 46	16.36 7	13.3	88.72	4 31	17.16 3	14.6	89.02	0 22	18.61 1	15.9	89.36	14 59	17.01 3	17.6	89.75	8 16
18.52 1	11.5	88.28	5 08	17.27 1	13.3	88.73	14 59	16.18 5	14.6	89.03	0 15	17.68 3	16.1	89.40	13 05	16.38 7	17.6	89.75	11 27
18.61 1	11.7	88.32	7 09	18.26 1	13.4	88.75	12 23	16.22 8	14.6	89.03	6 21	18.96 1	16.1	89.40	6 18	17.95 3	17.6	89.76	4 00
18.17 1	11.7	88.33	7 22	18.61 1	13.4	88.75	5 41	18.69 1	14.8	89.07	12 54	17.64 2	16.2	89.42	4 36	16.42 5	17.7	89.78	10 58
18.26 1	11.7	88.33	14 38	18.18 2	13.4	88.75	8 23	17.82 2	14.8	89.07	12 08	18.78 1	16.2	89.43	8 24	18.69 1	17.8	89.80	14 00

25 prec. + $85^{\mathrm{s}}.5$, − 1′ 43″

151—210				
Mag.		α 12m	x	y−10′
		s	′	′ ″
17.22	3	17.8	89.80	8 06
18.96	1	17.9	89.82	4 37
18.08	2	17.9	89.82	4 41
17.72	3	17.9	89.83	3 48
18.87	1	18.0	89.85	1 59
18.69	1	18.0	89.86	13 41
17.36	3	18.0	89.86	8 51
17.00	3	18.0	89.86	14 02
18.69	1	18.1	89.87	13 37
18.87	1	18.1	89.87	7 48
17.69	3	18.2	89.89	2 10
15.41	10	18.2	89.90	4 28
17.35	3	18.2	89.90	12 08
18.96	1	18.3	89.93	4 00
18.96	1	18.3	89.93	6 44
15.96	8	18.4	89.94	9 06
16.35	7	18.4	89.96	9 33
18.78	1	18.5	89.97	12 51
16.28	7	18.5	89.97	11 54
18.61	1	18.5	89.98	13 35
18.96	1	18.6	89.99	2 15
16.52	7	18.7	90.02	6 22
16.64	3	18.8	90.04	2 12
18.04	2	18.8	90.06	8 25
16.26	7	18.8	90.06	10 51
18.87	1	18.9	90.08	0 48
16.55	5	19.0	90.10	14 29
18.52	1	19.1	90.13	1 00
18.96	1	19.2	90.15	7 36
18.09	1	19.2	90.16	13 25
16.40	5	19.3	90.17	14 09
17.30	2	19.4	90.19	13 42
17.34	3	19.4	90.19	6 19
17.66	3	19.4	90.20	8 09
18.87	1	19.5	90.23	9 04
18.96	1	19.5	90.23	3 33
18.87	1	19.6	90.25	9 44
18.87	1	19.6	90.26	7 07
15.96	9	19.6	90.26	4 24
15.78	8	19.8	90.30	4 58
17.92	2	20.0	90.34	1 17
18.78	1	20.0	90.34	12 06
18.61	1	20.0	90.34	13 50
18.42	2	20.0	90.35	3 45
17.78	3	20.1	90.36	14 00
17.21	3	20.4	90.43	8 48
18.69	1	20.5	90.44	6 09
16.40	7	20.5	90.44	7 53
18.02	2	20.5	90.44	3 40
18.07	2	20.5	90.45	0 21
17.36	3	20.5	90.46	10 46
17.83	3	20.6	90.47	0 31
17.11	3	20.7	90.49	7 26
17.08	3	20.7	90.50	14 07
18.52	1	20.8	90.52	6 30
17.54	3	20.9	90.54	5 23
18.34	1	20.9	90.56	7 08
18.69	1	20.9	90.56	8 28
17.53	3	20.9	90.56	4 01
18.08	2	21.0	90.57	3 53

211—270				
Mag.		α 12m	x	y−10′
		s	′	′ ″
18.87	1	21.0	90.58	1 07
18.78	1	21.1	90.61	13 24
18.96	1	21.1	90.61	7 00
17.92	3	21.2	90.63	6 46
18.26	1	21.3	90.64	8 39
17.86	3	21.3	90.65	8 54
17.14	3	21.3	90.65	12 40
18.00	2	21.3	90.66	11 05
17.14	3	21.3	90.66	9 47
18.52	1	21.5	90.70	11 19
18.78	1	21.5	90.70	11 36
18.96	1	21.6	90.72	4 28
18.96	1	21.6	90.73	6 27
17.93	3	21.7	90.74	6 55
18.26	1	21.7	90.74	2 38
18.78	1	21.7	90.74	13 08
17.04	3	21.7	90.75	3 18
18.07	2	21.7	90.76	14 22
18.32	2	21.7	90.76	10 51
17.89	3	21.8	90.77	11 46
18.17	1	21.9	90.79	9 24
16.46	7	21.9	90.79	8 40
16.86	3	21.9	90.80	5 13
17.06	3	22.0	90.82	7 56
14.62	11	22.0	90.82	7 01
18.34	1	22.1	90.84	14 20
15.78	9	22.1	90.84	12 38
18.78	1	22.1	90.85	13 15
13.59	13	22.1	90.85	2 01
14.80	10	22.1	90.85	9 19
17.13	3	22.1	90.86	14 34
18.09	1	22.2	90.87	12 34
15.41	9	22.2	90.87	10 05
18.87	1	22.5	90.95	9 57
17.82	3	22.5	90.95	5 51
17.90	3	22.5	90.95	0 13
19.04	1	22.7	90.99	4 16
18.26	2	22.7	90.99	10 10
18.69	1	22.7	90.99	13 59
18.22	2	22.7	91.00	11 00
18.96	1	22.7	91.00	1 10
18.17	2	22.7	91.00	3 24
18.96	1	22.8	91.02	7 28
16.75	3	22.8	91.03	1 56
17.61	3	22.9	91.05	1 39
15.75	10	22.9	91.05	9 16
17.14	3	22.9	91.05	11 57
18.61	1	22.9	91.05	10 48
17.77	3	23.0	91.06	11 48
16.53	5	23.0	91.06	5 14
18.96	1	23.1	91.08	4 40
17.27	3	23.1	91.09	3 09
19.04	1	23.2	91.09	5 41
17.09	3	23.2	91.09	6 30
19.04	1	23.2	91.11	4 36
18.96	1	23.3	91.13	8 06
18.87	1	23.4	91.14	2 42
17.19	3	23.4	91.14	2 37
18.69	1	23.4	91.15	14 49
18.69	1	23.4	91.15	11 54

271—330				
Mag.		α 12m	x	y−10′
		s	′	′ ″
18.69	1	23.5	91.18	14 34
16.74	7	23.6	91.20	4 41
18.78	1	23.6	91.21	12 08
17.84	2	23.7	91.22	11 25
18.87	1	23.7	91.23	10 18
18.61	1	23.7	91.23	1 36
18.17	1	23.8	91.24	0 49
19.04	1	23.8	91.25	6 11
18.34	1	23.8	91.26	3 38
18.17	1	23.8	91.26	12 19
18.87	1	23.9	91.28	7 29
18.96	1	23.9	91.28	6 58
18.26	1	24.0	91.29	14 24
17.47	3	24.0	91.30	9 53
16.83	3	24.2	91.34	5 59
18.34	1	24.2	91.34	5 46
18.17	1	24.2	91.36	7 30
18.61	1	24.3	91.38	4 24
17.38	3	24.4	91.40	7 09
18.34	1	24.5	91.42	5 12
18.52	1	24.5	91.42	1 33
18.96	1	24.5	91.42	0 29
16.76	5	24.5	91.43	0 23
17.96	3	24.6	91.44	6 32
17.82	3	24.6	91.44	14 00
18.26	1	24.6	91.45	2 38
18.04	2	24.6	91.46	10 40
16.48	5	24.8	91.49	0 41
18.78	1	24.8	91.50	10 33
15.98	7	24.9	91.53	13 10
16.66	3	25.0	91.54	14 50
18.09	3	25.0	91.54	6 19
18.87	1	25.0	91.55	0 00
19.04	1	25.0	91.56	2 40
19.04	1	25.0	91.56	6 55
18.87	1	25.2	91.61	10 47
18.61	1	25.3	91.63	11 40
18.87	1	25.3	91.63	1 43
17.87	3	25.4	91.64	1 31
18.45	2	25.4	91.65	5 24
14.10	13	25.4	91.66	5 40
18.43	1	25.5	91.68	6 03
18.34	1	25.6	91.69	7 49
19.04	1	25.7	91.73	4 34
18.78	1	25.8	91.74	12 42
17.80	3	25.8	91.74	5 08
18.43	1	25.8	91.74	5 54
19.04	1	25.8	91.75	7 13
17.30	3	25.8	91.75	0 47
15.91	9	26.0	91.78	8 01
18.17	1	26.0	91.78	1 39
16.90	3	26.1	91.80	0 19
18.61	1	26.2	91.82	1 31
17.87	3	26.2	91.83	3 19
17.83	3	26.2	91.83	10 16
18.18	2	26.3	91.84	10 10
17.31	3	26.3	91.84	2 25
16.77	3	26.5	91.89	14 25
17.92	3	26.6	91.93	6 50
16.04	8	26.7	91.94	5 02

331—390				
Mag.		α 12m	x	y−10′
		s	′	′ ″
18.17	2	26.7	91.95	0 07
19.04	1	26.7	91.96	6 37
18.87	1	26.8	91.97	10 45
18.34	1	26.9	91.99	3 31
17.41	3	26.9	92.01	12 59
17.12	3	26.9	92.01	12 26
13.59	13	27.0	92.02	8 31
19.04	1	27.0	92.03	7 27
17.86	3	27.1	92.04	3 26
18.87	1	27.1	92.05	10 33
18.87	1	27.1	92.06	10 00
18.43	1	27.1	92.06	14 55
18.17	1	27.2	92.07	12 01
18.78	1	27.2	92.07	9 52
18.87	1	27.3	92.10	11 01
17.65	3	27.3	92.11	13 07
19.04	1	27.5	92.15	2 51
18.14	2	27.5	92.15	1 28
18.96	1	27.6	92.17	0 34
18.96	1	27.6	92.17	9 00
18.87	1	27.8	92.22	10 31
19.04	1	27.8	92.23	1 52
18.43	1	27.8	92.23	4 58
19.04	1	27.8	92.23	7 08
18.70	2	27.8	92.23	5 27
18.69	1	27.9	92.24	5 59
19.04	1	27.9	92.25	3 10
19.04	1	27.9	92.25	6 52
18.87	1	27.9	92.25	9 01
19.04	1	27.9	92.25	7 45
19.04	1	27.9	92.26	2 56
17.19	3	28.0	92.27	13 30
17.24	3	28.1	92.29	4 10
18.10	2	28.1	92.29	7 56
16.82	5	28.2	92.32	5 20
18.21	3	28.2	92.33	7 39
18.78	1	28.2	92.33	7 46
17.97	3	28.2	92.33	7 13
18.96	1	28.3	92.34	10 00
16.95	3	28.3	92.36	12 09
18.69	1	28.5	92.40	9 49
18.43	1	28.5	92.40	5 26
18.61	1	28.5	92.40	2 08
17.80	3	28.6	92.42	3 42
18.96	1	28.6	92.43	2 23
18.46	2	28.6	92.43	4 53
17.80	3	28.7	92.44	12 18
18.34	1	28.7	92.46	6 10
19.04	1	28.7	92.46	2 33
18.09	3	28.7	92.46	3 08
18.34	1	28.7	92.46	11 53
18.78	1	28.8	92.47	11 28
17.72	2	28.8	92.47	13 27
17.96	2	28.9	92.50	12 51
18.16	2	28.9	92.50	2 25
18.01	3	29.0	92.53	9 47
18.09	2	29.1	92.54	13 20
18.96	1	29.1	92.55	1 38
18.09	3	29.1	92.55	9 16
18.87	1	29.2	92.56	11 37

391—450				
Mag.		α 12m	x	y−10′
		s	′	′ ″
18.87	1	29.2	92.56	3 59
16.11	7	29.4	92.60	14 43
18.96	1	29.5	92.63	0 36
16.52	5	29.5	92.63	10 11
17.64	3	29.6	92.64	12 15
18.09	2	29.6	92.64	10 23
18.34	1	29.6	92.65	14 33
17.66	3	29.6	92.65	5 02
18.04	3	29.6	92.65	7 43
18.69	1	29.7	92.67	12 29
16.51	8	29.8	92.69	4 15
19.04	1	29.8	92.69	8 19
14.89	11	30.0	92.74	5 06
17.83	3	30.0	92.74	1 43
18.96	1	30.0	92.75	0 30
17.87	3	30.0	92.75	0 45
18.61	1	30.0	92.75	6 51
18.78	1	30.0	92.76	1 29
18.07	2	30.0	92.76	14 01
18.69	1	30.1	92.78	14 53
17.64	3	30.2	92.80	12 21
18.69	1	30.3	92.82	6 26
17.13	3	30.3	92.82	5 08
19.13	1	30.3	92.82	2 47
18.43	1	30.3	92.83	4 49
17.50	3	30.3	92.83	14 20
17.92	2	30.4	92.84	14 29
18.61	1	30.4	92.84	7 50
17.91	1	30.5	92.87	12 35
18.12	2	30.5	92.88	0 17
16.61	7	30.6	92.89	7 06
17.86	3	30.6	92.90	10 50
18.52	1	30.7	92.92	8 57
19.04	1	30.7	92.93	6 34
17.96	3	30.8	92.94	0 35
18.26	1	30.8	92.95	1 26
17.50	3	30.8	92.95	9 25
18.04	3	30.8	92.96	7 54
17.60	3	30.8	92.96	4 44
16.08	8	31.0	92.99	1 21
18.69	1	31.0	92.99	7 26
18.00	2	31.0	93.00	13 03
17.72	3	31.2	93.06	4 45
16.58	5	31.2	93.06	9 37
19.13	1	31.2	93.06	5 06
18.78	1	31.3	93.07	11 27
17.96	2	31.4	93.10	9 25
16.76	5	31.4	93.11	2 52
19.04	1	31.5	93.12	7 53
18.96	1	31.5	93.13	9 39
16.90	3	31.6	93.15	10 17
16.59	7	31.8	93.19	5 10
18.87	1	31.8	93.20	12 26
17.55	3	31.8	93.21	3 23
17.31	3	31.9	93.23	0 42
17.88	3	32.0	93.24	5 36
19.04	1	32.0	93.25	3 00
18.96	1	32.1	93.26	1 19
19.04	1	32.1	93.26	7 54
17.26	3	32.2	93.28	11 47

25 prec. + 85.ˢ5, − 1′ 43″

451—510					511—570					571—630					631—690					691—750				
Mag.		α 12^{m}	x	$y-10'$	Mag.		α 12^{m}	x	$y-10'$	Mag.		α 12^{m}	x	$y-10'$	Mag.		α 12^{m}	x	$y-10'$	Mag.		α 12^{m}	x	$y-10'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
18.56	2	32.3	93.29	3 13	17.82	2	34.8	93.93	3 49	18.22	3	37.4	94.54	3 39	18.43	1	40.6	95.32	4 47	17.09	3	43.4	96.01	0 34
17.84	3	32.3	93.30	2 04	19.22	1	34.8	93.93	5 36	19.22	1	37.4	94.54	4 58	18.52	1	40.6	95.33	5 46	18.12	2	43.5	96.03	3 32
18.96	1	32.3	93.30	7 29	17.54	3	34.9	93.94	5 18	18.87	1	37.4	94.54	0 29	17.99	3	40.7	95.34	3 40	18.01	2	43.6	96.04	2 02
19.13	1	32.4	93.32	5 38	19.22	1	34.9	93.94	4 01	19.22	1	37.4	94.55	4 52	17.08	3	40.7	95.35	14 54	17.75	3	43.6	96.05	2 14
19.04	1	32.4	93.32	1 54	19.04	1	34.9	93.95	2 59	17.09	3	37.4	94.55	8 07	17.05	3	40.8	95.36	5 45	17.22	3	43.6	96.05	5 25
18.78	1	32.4	93.33	13 05	19.04	1	34.9	93.95	1 11	18.78	1	37.4	94.56	6 33	17.98	3	40.9	95.38	0 58	18.87	1	43.6	96.05	11 05
16.26	7	32.4	93.33	7 13	18.50	2	34.9	93.95	4 22	18.12	3	37.7	94.62	1 57	19.13	1	40.9	95.38	6 55	18.87	1	43.7	96.06	12 27
19.13	1	32.5	93.34	4 21	18.69	1	35.0	93.96	7 11	18.28	2	37.8	94.64	0 07	19.04	1	41.0	95.39	8 03	18.22	3	43.7	96.06	4 04
18.61	1	32.5	93.35	7 33	19.13	1	35.0	93.96	7 03	19.22	1	37.9	94.66	6 13	19.13	1	41.0	95.39	6 37	15.39	8	43.7	96.06	9 23
17.96	3	32.5	93.36	9 16	19.04	1	35.1	93.98	1 17	16.22	9	37.9	94.66	5 00	18.87	1	41.0	95.40	11 40	18.96	1	43.7	96.07	8 29
16.96	3	32.5	93.36	5 31	16.70	6	35.2	93.99	3 50	19.04	1	38.0	94.69	8 18	19.13	1	41.0	95.40	4 50	17.34	3	43.8	96.08	0 26
19.13	1	32.7	93.39	7 18	18.24	2	35.2	93.99	3 17	17.43	3	38.3	94.74	1 49	18.69	1	41.1	95.42	1 29	17.44	3	43.8	96.08	2 32
18.61	1	32.7	93.39	2 30	18.04	3	35.2	93.99	5 21	18.43	1	38.3	94.75	2 10	18.69	1	41.1	95.42	14 10	18.87	1	44.0	96.12	11 29
18.87	1	32.7	93.40	2 27	16.98	3	35.2	94.00	11 18	18.52	1	38.3	94.75	13 04	17.32	3	41.2	95.44	14 53	16.91	3	44.0	96.12	11 01
18.96	1	32.7	93.40	9 35	18.17	1	35.2	94.01	11 51	17.40	3	38.3	94.76	14 54	19.04	1	41.2	95.44	8 07	18.87	1	44.1	96.14	11 35
16.68	5	32.8	93.42	8 16	18.52	1	35.2	94.01	1 03	18.96	1	38.3	94.76	9 56	18.61	1	41.2	95.44	7 22	17.88	2	44.1	96.14	13 43
18.96	1	32.8	93.43	0 02	18.01	3	35.4	94.05	1 57	18.36	2	38.3	94.76	6 15	10.26w	8	41.2	95.44	5 24	18.26	1	44.1	96.14	9 37
19.13	1	32.9	93.46	7 34	18.26	1	35.7	94.13	2 59	17.78	3	38.3	94.76	8 16	17.95	3	41.2	95.45	2 27	18.23	2	44.1	96.15	9 03
18.50	2	32.9	93.46	7 54	15.35	9	35.7	94.13	8 25	18.96	1	38.4	94.77	10 03	17.82	1	41.3	95.48	14 47	18.87	1	44.1	96.16	5 49
18.87	1	32.9	93.46	12 24	18.96	1	35.8	94.14	0 39	17.90	2	38.5	94.81	14 08	19.13	1	41.4	95.50	2 49	16.96	3	44.1	96.16	7 40
18.09	1	32.9	93.46	14 58	16.60	7	35.8	94.15	6 19	16.57	7	38.6	94.82	8 39	19.04	1	41.5	95.52	1 23	16.80	4	44.1	96.16	2 46
17.26	3	33.0	93.47	14 51	19.22	1	35.9	94.17	5 23	16.68	5	38.6	94.83	9 46	18.45	2	41.6	95.54	3 01	18.87	1	44.2	96.17	12 20
17.72	3	33.1	93.49	13 38	17.64	3	35.9	94.17	14 27	17.99	3	38.6	94.83	6 31	18.78	1	41.6	95.54	12 48	19.04	1	44.2	96.18	5 50
17.82	3	33.1	93.49	4 59	16.19	8	35.9	94.18	11 01	19.13	1	38.7	94.84	5 36	19.13	1	41.6	95.56	3 16	19.22	1	44.4	96.22	5 19
19.04	1	33.1	93.49	5 32	19.22	1	36.0	94.20	4 59	18.17	1	38.7	94.85	5 29	17.89	3	41.8	95.59	10 00	18.43	1	44.4	96.22	2 22
18.87	1	33.1	93.50	10 02	19.04	1	36.1	94.23	1 09	16.94	3	38.7	94.85	3 19	18.02	2	41.8	95.59	12 33	18.52	1	44.4	96.23	0 34
18.87	1	33.1	93.50	11 59	17.79	3	36.2	94.25	0 32	19.13	1	38.7	94.86	3 56	17.09	3	41.8	95.60	14 33	18.11	2	44.5	96.25	1 24
19.13	1	33.1	93.51	4 15	19.13	1	36.2	94.25	7 11	17.94	2	38.7	94.86	13 28	17.84	3	42.0	95.66	11 01	15.80	8	44.5	96.26	8 54
18.87	1	33.2	93.53	12 28	17.89	3	36.2	94.26	10 58	18.61	1	38.7	94.86	11 17	17.75	3	42.2	95.71	3 02	17.93	3	44.5	96.26	5 48
18.78	1	33.2	93.53	12 06	18.96	1	36.3	94.27	10 21	17.40	3	38.9	94.89	11 52	18.26	1	42.2	95.71	7 50	18.87	1	44.6	96.28	10 42
17.98	3	33.2	93.53	6 29	18.69	1	36.5	94.32	10 09	16.79	7	38.9	94.90	6 08	17.04	3	42.3	95.72	0 12	17.17	3	44.7	96.31	10 58
19.13	1	33.3	93.55	6 32	19.13	1	36.5	94.32	7 08	17.76	3	38.9	94.90	9 21	18.96	1	42.3	95.73	0 40	18.26	1	44.7	96.31	6 38
18.78	1	33.4	93.57	8 37	14.10	12	36.5	94.33	2 28	18.52	1	39.0	94.93	4 30	19.13	1	42.4	95.75	2 42	19.04	1	44.8	96.32	7 18
16.00	7	33.5	93.60	10 04	17.85	3	36.5	94.33	13 16	19.22	1	39.1	94.94	4 22	18.41	2	42.4	95.75	2 21	18.36	2	44.9	96.34	1 37
18.96	1	33.6	93.62	10 23	18.87	1	36.6	94.34	11 17	18.28	2	39.1	94.94	5 00	18.61	1	42.4	95.75	11 09	18.96	1	44.9	96.34	0 10
17.53	3	33.6	93.63	3 15	18.52	1	36.6	94.34	12 55	18.09	1	39.2	94.97	8 13	18.96	1	42.5	95.77	1 29	18.78	1	44.9	96.35	7 19
16.97	3	33.7	93.64	1 29	18.96	1	36.6	94.34	7 43	17.73	3	39.2	94.98	1 05	18.78	1	42.6	95.79	1 02	18.69	1	44.9	96.36	7 59
17.56	3	33.7	93.64	8 07	18.87	1	36.6	94.34	0 37	18.23	3	39.3	95.00	4 38	19.22	1	42.6	95.80	5 24	18.34	1	45.0	96.37	6 52
17.42	3	33.7	93.64	5 33	18.13	3	36.6	94.35	3 28	18.87	1	39.4	95.03	12 11	18.87	1	42.6	95.80	13 26	17.53	3	45.0	96.37	13 01
18.00	1	33.7	93.64	8 22	16.15	7	36.6	94.35	11 04	18.69	1	39.4	95.03	5 57	17.84	3	42.6	95.81	10 48	18.78	1	45.0	96.38	12 00
18.14	2	33.7	93.64	9 27	18.78	1	36.6	94.36	13 22	18.21	3	39.5	95.05	5 47	19.13	1	42.7	95.83	7 07	18.54	2	45.0	96.38	2 41
14.81	11	33.9	93.69	8 42	18.87	1	36.6	94.36	0 14	17.21	3	39.5	95.06	14 43	19.13	1	42.7	95.83	2 58	17.45	3	45.1	96.39	0 24
18.15	3	33.9	93.69	6 34	18.96	1	36.7	94.38	10 31	16.87	3	39.5	95.06	11 17	17.32	3	42.8	95.84	4 56	18.87	1	45.1	96.41	12 33
16.82	3	33.9	93.70	10 02	19.22	1	36.8	94.39	4 52	18.34	1	39.5	95.06	4 12	14.76	11	42.8	95.85	1 06	19.13	1	45.3	96.44	5 16
17.96	2	33.9	93.71	12 57	18.96	1	36.8	94.40	10 25	18.96	1	39.7	95.09	5 40	16.78	3	42.8	95.85	8 10	17.64	3	45.3	96.45	5 35
19.04	1	33.9	93.71	2 36	17.08	3	36.8	94.41	7 51	15.34	9	39.7	95.14	8 27	18.78	1	42.8	95.86	9 41	19.04	1	45.3	96.45	1 53
19.13	1	34.0	93.72	7 17	18.78	1	36.9	94.42	14 23	18.96	1	39.7	95.14	10 28	17.54	3	42.8	95.86	10 15	18.22	2	45.3	96.45	4 38
18.78	1	34.1	93.74	13 10	18.26	1	36.9	94.42	1 00	18.78	1	39.9	95.15	11 46	19.04	1	42.9	95.88	1 51	17.19	3	45.3	96.46	11 28
19.13	1	34.1	93.75	3 40	19.04	1	36.9	94.43	1 34	15.37	9	39.9	95.15	7 50	18.62	2	43.0	95.89	6 49	17.33	3	45.5	96.49	3 28
16.46	7	34.1	93.76	11 38	19.04	1	36.9	94.43	8 53	17.76	3	39.9	95.16	13 25	18.78	1	43.0	95.91	3 31	19.04	1	45.5	96.49	2 07
17.47	3	34.3	93.79	4 41	17.13	3	37.1	94.47	1 03	18.28	2	40.0	95.18	9 02	19.04	1	43.1	95.92	2 13	18.43	1	45.5	96.49	7 36
16.87	3	34.3	93.81	0 25	19.13	1	37.1	94.47	6 43	16.93	3	40.1	95.20	8 27	17.85	3	43.1	95.92	1 00	18.15	3	45.6	96.53	3 17
19.22	1	34.4	93.82	5 58	19.04	1	37.2	94.49	8 40	17.58	3	40.1	95.20	13 09	17.79	3	43.1	95.93	13 27	16.60	5	45.7	96.54	2 24
17.07	3	34.4	93.83	5 51	19.22	1	37.3	94.52	5 00	17.43	3	40.3	95.24	6 58	18.87	1	43.1	95.93	12 33	18.87	1	45.7	96.54	7 20
18.02	3	34.4	93.83	1 01	19.13	1	37.3	94.52	2 42	17.99	2	40.3	95.26	9 43	18.34	1	43.1	95.93	14 54	19.04	1	45.7	96.55	7 40
17.01	3	34.5	93.85	7 15	18.18	2	37.3	94.52	0 39	19.13	1	40.4	95.27	2 56	18.26	2	43.2	95.95	10 13	17.27	3	45.7	96.55	10 33
16.96	3	34.5	93.86	9 34	18.69	1	37.3	94.52	13 38	17.71	3	40.4	95.27	10 17	18.96	1	43.2	95.95	0 12	18.96	1	45.7	96.56	9 22
18.87	1	34.5	93.86	2 38	17.20	3	37.3	94.53	6 18	17.34	3	40.4	95.27	12 29	17.33	3	43.2	95.95	4 31	18.96	1	45.7	96.56	11 59
17.95	3	34.7	93.90	10 07	18.04	3	37.3	94.53	7 17	18.02	3	40.4	95.28	9 35	17.60	3	43.2	95.96	5 11	18.87	1	45.7	96.56	1 04
17.73	3	34.7	93.90	13 31	17.55	3	37.3	94.54	10 37	18.69	1	40.5	95.29	10 34	18.87	1	43.4	96.00	10 54	18.69	1	45.9	96.59	3 20

25 prec. + $85^{\mathrm{s}}.5$, − 1′ 43″

751—810				
Mag.		α 12^m	x	$y-10'$
		s	′	′ ″
19.04	1	45.9	96.59	2 03
19.13	1	45.9	96.60	6 47
18.87	1	45.9	96.60	12 29
18.18	2	45.9	96.61	11 38
17.42	3	45.9	96.61	13 07
16.64	5	46.0	96.62	2 14
17.80	3	46.0	96.63	10 05
19.13	1	46.1	96.64	3 58
17.03	3	46.1	96.65	14 00
17.63	3	46.1	96.66	2 42
17.98	3	46.2	96.68	0 47
19.13	1	46.3	96.69	7 32
18.26	1	46.3	96.70	8 45
18.87	1	46.4	96.73	9 16
18.08	3	46.5	96.74	7 52
18.02	2	46.5	96.74	2 07
17.20	3	46.5	96.75	9 33
18.10	2	46.6	96.76	4 04
16.72	5	46.7	96.79	12 29
19.13	1	46.8	96.80	4 18
18.87	1	46.8	96.81	11 53
19.13	1	47.0	96.84	7 16
17.11	3	47.0	96.85	3 48
18.69	1	47.2	96.89	3 33
18.01	2	47.2	96.90	14 44
16.74	5	47.2	96.91	9 04
18.87	1	47.4	96.94	10 45
18.23	2	47.4	96.94	10 17
15.46	10	47.4	96.94	0 30
19.04	1	47.4	96.94	2 20
18.87	1	47.4	96.95	6 22
18.61	1	47.4	96.96	7 26
19.04	1	47.5	96.97	7 43
15.22	10	47.6	96.99	9 37
17.88	3	47.7	97.02	11 14
18.69	1	47.7	97.02	1 49
16.10	9	47.7	97.02	2 51
14.79	11	47.7	97.03	4 56
16.75	5	47.8	97.04	11 24
17.02	3	47.8	97.04	14 14
19.04	1	47.8	97.05	1 39
17.03	3	47.8	97.06	14 05
17.17	3	47.9	97.07	5 58
18.69	1	48.0	97.09	1 53
14.06	12	48.0	97.10	7 14
18.96	1	48.1	97.12	10 15
17.08	4	48.1	97.13	7 19
19.04	1	48.1	97.13	2 27
18.96	1	48.2	97.14	0 26
18.61	1	48.2	97.16	12 13
18.96	1	48.3	97.17	10 27
16.65	3	48.3	97.17	14 36
18.01	3	48.4	97.19	2 06
19.13	1	48.4	97.20	5 20
18.13	2	48.6	97.24	9 48
15.79	10	48.6	97.24	5 08
19.13	1	48.6	97.24	6 19
17.87	3	48.6	97.25	4 35
18.24	2	48.8	97.29	5 31
18.22	2	48.8	97.30	14 49

811—870				
Mag.		α 12^m	x	$y-10'$
		s	′	′ ″
18.04	3	48.8	97.31	2 20
17.57	3	48.9	97.32	7 22
16.35	5	48.9	97.33	0 15
19.04	1	49.0	97.35	7 04
18.78	1	49.0	97.36	14 06
16.94	3	49.0	97.36	13 15
18.69	1	49.1	97.37	13 54
17.37	3	49.2	97.39	7 49
18.52	1	49.2	97.40	11 50
18.69	1	49.2	97.41	1 00
18.78	1	49.3	97.42	3 28
18.96	1	49.3	97.43	0 56
19.13	1	49.3	97.43	6 29
16.70	5	49.4	97.44	8 47
18.03	3	49.4	97.44	6 17
15.86	9	49.4	97.44	3 08
19.13	1	49.4	97.46	4 06
13.82	12	49.4	97.46	14 52
17.12	3	49.4	97.46	14 04
17.22	3	49.5	97.47	9 58
16.69	5	49.6	97.50	14 31
16.80	3	49.7	97.53	8 25
19.13	1	49.8	97.54	6 27
18.96	1	49.8	97.55	8 38
18.00	3	49.9	97.57	0 03
16.55	5	49.9	97.57	13 49
19.04	1	50.2	97.62	1 50
18.43	1	50.2	97.63	6 14
19.04	1	50.2	97.63	7 14
17.49	3	50.3	97.64	6 41
19.13	1	50.3	97.64	4 07
16.39	8	50.3	97.65	4 44
18.87	1	50.3	97.66	10 36
18.52	1	50.3	97.66	6 29
18.14	2	50.3	97.66	1 36
18.43	1	50.5	97.71	5 14
16.75	3	50.5	97.71	13 44
19.04	1	50.6	97.72	4 53
18.87	1	50.7	97.75	0 50
18.78	1	50.7	97.76	13 11
17.35	3	50.7	97.76	11 13
18.96	1	50.8	97.78	5 28
18.00	1	50.9	97.79	8 52
18.96	1	50.9	97.79	8 28
18.87	1	50.9	97.81	11 40
19.04	1	50.9	97.81	1 40
18.16	2	51.0	97.82	7 24
17.35	3	51.0	97.82	5 43
19.04	1	51.1	97.85	5 13
16.85	3	51.1	97.85	9 02
18.61	1	51.2	97.87	14 19
17.48	3	51.3	97.89	8 42
17.57	3	51.3	97.91	4 39
18.30	2	51.4	97.92	4 29
17.44	3	51.4	97.93	5 28
18.87	1	51.4	97.93	12 02
15.84	8	51.5	97.96	13 16
17.79	3	51.6	97.97	12 15
18.18	2	51.6	97.98	3 40
17.64	3	51.6	97.98	6 39

871—930				
Mag.		α 12^m	x	$y-10'$
		s	′	′ ″
17.10	3	51.7	97.99	9 04
16.77	3	51.7	98.00	14 35
16.69	3	51.7	98.00	1 32
16.68	3	51.9	98.05	1 20
18.18	2	51.9	98.05	9 17
16.15	7	52.0	98.07	13 42
17.45	3	52.1	98.09	5 58
18.96	1	52.1	98.11	3 24
18.96	1	52.3	98.14	8 38
17.39	3	52.3	98.16	11 33
18.02	2	52.3	98.16	11 26
17.29	3	52.3	98.16	13 00
16.45	6	52.5	98.19	11 22
17.93	3	52.5	98.19	9 04
18.38	2	52.5	98.19	5 31
18.00	1	52.5	98.19	1 32
17.88	3	52.5	98.20	0 59
18.61	1	52.5	98.21	8 01
18.26	1	52.7	98.24	0 31
16.59	3	52.7	98.24	2 16
17.89	3	52.7	98.25	11 57
17.75	2	52.7	98.25	8 34
19.04	1	52.8	98.26	2 55
18.43	1	52.8	98.27	5 51
19.04	1	52.8	98.27	4 33
17.63	3	53.0	98.29	9 09
18.43	1	53.0	98.30	14 34
18.50	2	53.0	98.31	5 56
18.78	1	53.1	98.33	6 39
18.07	3	53.1	98.33	5 10
18.87	1	53.2	98.34	11 14
19.04	1	53.2	98.35	5 09
17.04	3	53.2	98.36	13 17
18.14	2	53.3	98.37	7 00
17.94	2	53.3	98.38	9 21
18.10	3	53.4	98.40	1 04
16.47	7	53.5	98.42	14 40
18.87	1	53.5	98.43	11 42
16.71	3	53.5	98.43	8 24
18.56	2	53.6	98.44	7 36
16.57	3	53.6	98.45	7 12
18.87	1	53.6	98.45	0 07
18.20	3	53.8	98.50	5 05
17.54*	1	53.9	98.53	5 52
16.66	1	53.9	98.53	5 50
17.12	3	53.9	98.53	2 37
18.69	1	54.0	98.54	14 43
18.59	2	54.0	98.55	2 25
19.04	1	54.1	98.58	4 13
16.30	8	54.2	98.59	12 04
18.65	2	54.2	98.60	4 05
16.02	9	54.3	98.63	1 32
18.96	1	54.4	98.65	7 42
18.96	1	54.5	98.67	4 23
18.87	1	54.5	98.67	10 17
16.70	5	54.6	98.70	11 46
18.34	1	54.6	98.70	3 33
19.04	1	54.6	98.70	5 27
18.01	3	54.6	98.71	8 35
18.87	1	54.7	98.73	7 34

931—990				
Mag.		α 12^m	x	$y-10'$
		s	′	′ ″
19.04	1	54.7	98.73	3 23
18.96	1	54.8	98.75	0 59
18.69	1	54.8	98.76	1 15
19.04	1	55.0	98.79	3 18
18.00	3	55.0	98.79	0 47
17.62	3	55.0	98.79	7 41
19.04	1	55.0	98.81	3 02
19.04	1	55.1	98.83	4 27
18.26	1	55.2	98.84	6 54
18.50	2	55.2	98.85	6 45
16.32	7	55.2	98.86	2 15
19.04	1	55.4	98.90	5 32
17.76	2	55.5	98.92	13 49
13.05	14	55.5	98.93	12 53
19.04	1	55.5	98.93	3 59
18.96	1	55.6	98.94	1 46
14.54	12	55.6	98.94	7 23
18.96	1	55.6	98.95	1 35
17.82	3	55.7	98.97	10 46
18.15	3	55.8	98.99	5 31
18.18	2	56.1	99.05	0 59
18.96	1	56.1	99.05	1 05
18.96	1	56.1	99.05	5 15
18.18	2	56.1	99.05	8 17
16.21	7	56.1	99.06	9 13
18.61	1	56.1	99.06	10 11
18.96	1	56.3	99.09	8 12
18.69	1	56.3	99.11	7 16
18.96	1	56.4	99.13	6 23
17.80	2	56.5	99.14	6 29
18.34	1	56.5	99.14	3 51
16.41	7	56.5	99.14	11 07
16.58	7	56.5	99.14	10 07
18.96	1	56.5	99.16	4 00
13.56	13	56.5	99.16	2 22
17.82	1	56.6	99.18	12 41
18.87	1	56.7	99.19	0 10
18.17	1	56.7	99.19	9 13
18.87	1	56.8	99.22	0 29
16.80	3	56.8	99.22	5 30
18.26	1	56.9	99.24	6 20
17.74	3	56.9	99.24	13 54
19.04	1	56.9	99.25	4 56
17.43	3	56.9	99.25	2 34
18.69	1	57.0	99.27	6 06
18.17	1	57.0	99.28	0 03
17.32	3	57.1	99.29	3 28
18.78	1	57.1	99.29	13 37
18.43	1	57.2	99.33	4 50
18.28	2	57.3	99.34	3 17
17.36	3	57.3	99.34	5 59
18.26	1	57.3	99.35	5 38
18.87	1	57.3	99.35	1 13
17.20	3	57.3	99.35	2 12
18.34	1	57.3	99.35	4 38
18.87	1	57.3	99.35	10 35
18.78	1	57.3	99.36	12 45
18.78	1	57.3	99.36	12 57
16.71	3	57.3	99.36	10 58
18.87	1	57.3	99.36	6 29

991—1050				
Mag.		α 12^m	x	$y-10'$
		s	′	′ ″
17.96	3	57.3	99.36	9 20
18.00	2	57.5	99.39	11 26
16.68	5	57.5	99.39	13 08
15.57	9	57.6	99.42	1 01
18.96	1	57.6	99.42	4 41
17.61	3	57.6	99.43	4 53
17.94	3	57.6	99.43	7 34
18.59	2	57.7	99.45	6 11
18.96	1	57.7	99.46	8 21
18.87	1	57.8	99.47	4 33
16.70	3	57.8	99.47	1 16
18.87	1	57.9	99.50	11 12
17.67	3	58.0	99.53	2 06
16.96	3	58.1	99.54	0 22
18.52	1	58.1	99.54	3 09
18.69	1	58.1	99.54	14 05
17.17	3	58.1	99.54	14 29
16.50	6	58.1	99.55	10 58
18.69	1	58.1	99.56	14 47
18.96	1	58.1	99.56	1 33
18.96	1	58.4	99.62	8 28
17.74	2	58.4	99.62	14 53
17.92	3	58.4	99.63	2 55
15.12	9	58.5	99.65	1 53
16.76	5	58.5	99.65	4 51
15.29	10	58.5	99.65	4 33
16.93	3	58.5	99.65	5 07
18.96	1	58.5	99.65	8 11
17.93	3	58.6	99.66	5 54
18.78	1	58.7	99.68	12 01
17.17	3	58.9	99.72	9 57
18.08	2	58.9	99.72	1 31
15.95	9	58.9	99.73	1 15
18.78	1	59.0	99.74	11 27
16.86	3	59.0	99.76	10 41
17.98	2	59.0	99.76	10 58
17.57	3	59.1	99.77	10 10
15.86	7	59.1	99.77	3 21
17.08	3	59.2	99.79	2 49
18.96	1	59.3	99.82	5 00
18.96	1	59.3	99.83	7 00
18.61	1	59.3	99.83	0 11
17.95	3	59.4	99.84	8 06
17.66	3	59.4	99.85	2 24
17.05	3	59.5	99.87	14 49
18.17	1	59.5	99.88	4 10
18.96	1	59.6	99.89	6 02
18.87	1	59.8	99.94	0 50
18.17	1	59.8	99.94	1 02
18.96	1	59.8	99.95	2 09
18.17	1	59.8	99.95	10 54
17.63	3	59.8	99.96	13 48
18.78	1	59.9	99.97	12 13
16.64	5	59.9	99.97	10 39
16.47	5	59.9	99.97	2 38
18.52	1	59.9	99.98	3 44
18.26	1	60.0	99.99	2 35
17.94	3	60.0	99.99	4 09
15.49	9	60.0	99.99	5 34
18.78	1	60.1	0.02	11 59

25 prec. + 85ˢ.5, − 1′ 42″

1051—1110					1111—1170					1171—1230					1231—1290					1291—1305				
Mag.		α 13ᵐ	x	y−10′	Mag.		α 13ᵐ	x	y−10′	Mag.		α 13ᵐ	x	y−10′	Mag.		α 13ᵐ	x	y−10′	Mag.		α 13ᵐ	x	y−10′
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
18.96	1	0.1	0.03	7 29	17.74	2	2.9	0.71	12 49	17.84	2	5.8	1.40	10 52	17.25	3	8.7	2.11	8 28	18.09	1	11.4	2.74	5 43
16.29	7	0.3	0.07	8 50	17.61	3	2.9	0.71	0 24	17.92	3	5.8	1.41	6 19	18.52	1	8.8	2.12	3 45	18.78	1	11.4	2.75	3 39
17.07	3	0.3	0.07	13 54	18.87	1	2.9	0.71	5 14	18.78	1	5.9	1.42	9 21	17.72	2	8.8	2.12	13 34	15.77	7	11.4	2.75	7 13
16.38	7	0.4	0.09	11 34	16.99	3	3.0	0.72	7 45	18.87	1	5.9	1.43	6 59	18.78	1	8.8	2.13	10 30	16.50	3	11.4	2.76	6 46
18.61	1	0.4	0.09	4 33	18.87	1	3.1	0.74	6 35	18.78	1	5.9	1.43	9 29	17.27	3	8.8	2.13	8 11	16.96	2	11.4	2.76	6 35
18.69	1	0.4	0.10	4 07	18.87	1	3.1	0.75	9 55	17.55	3	6.0	1.44	10 01	18.87	1	8.9	2.14	4 17	17.96	2	11.5	2.77	5 34
16.20	8	0.5	0.12	1 57	18.13	2	3.1	0.75	0 30	17.14	3	6.0	1.44	11 42	18.78	1	8.9	2.15	0 07	17.56	3	11.6	2.80	7 59
14.96	10	0.6	0.14	8 07	18.87	1	3.1	0.77	5 10	17.83	2	6.0	1.44	13 33	17.73	3	8.9	2.15	8 32	18.78	1	11.6	2.81	4 24
17.82	2	0.6	0.15	12 53	17.17	3	3.3	0.79	7 36	17.98	2	6.0	1.45	10 56	17.55	3	8.9	2.16	10 49	18.69	1	11.7	2.82	5 50
18.04	2	0.6	0.15	0 50	18.78	1	3.3	0.79	1 09	18.61	1	6.2	1.49	2 02	17.82	1	8.9	2.16	14 23	17.82	3	11.7	2.83	10 54
18.96	1	0.6	0.16	3 16	18.78	1	3.3	0.79	0 09	18.00	2	6.2	1.51	5 59	17.24	3	8.9	2.16	11 18	16.39	5	11.8	2.86	11 51
17.86	3	0.7	0.17	13 49	18.78	1	3.3	0.79	10 43	17.94	3	6.3	1.53	8 18	18.78	1	9.0	2.17	2 00	18.78	1	11.8	2.86	8 37
18.69	1	0.7	0.18	13 38	18.78	1	3.3	0.81	11 50	17.85	3	6.3	1.53	9 36	18.69	1	9.0	2.18	0 32	17.96	2	11.9	2.87	11 34
18.96	1	0.7	0.18	4 41	16.28	7	3.4	0.83	13 50	16.49	7	6.4	1.54	5 37	18.78	1	9.0	2.18	8 34	17.56	2	12.0	2.91	6 31
16.82	3	0.8	0.19	3 55	17.84	3	3.5	0.84	7 14	18.17	1	6.4	1.55	12 28	17.43	3	9.2	2.23	8 44	18.78	1	12.4	2.99	4 23
18.22	2	0.8	0.20	1 42	17.80	3	3.5	0.84	1 49	18.17	1	6.6	1.59	2 15	18.26	1	9.3	2.24	6 16					
17.93	3	0.9	0.23	3 13	18.66	2	3.5	0.85	4 52	17.26	3	6.6	1.59	2 31	16.56	3	9.3	2.24	6 28					
17.67	3	1.0	0.24	5 35	17.22	3	3.5	0.85	2 44	18.61	1	6.7	1.62	5 00	17.82	1	9.3	2.25	8 59					
16.40	7	1.0	0.24	6 08	17.32	3	3.6	0.88	11 05	18.09	1	6.7	1.63	2 21	17.41	3	9.3	2.25	1 05					
17.43	3	1.0	0.26	8 42	18.87	1	3.7	0.89	3 35	18.23	2	6.7	1.63	6 14	18.78	1	9.4	2.28	4 25					
15.23	10	1.2	0.30	1 53	16.97	3	3.7	0.89	4 16	18.87	1	6.8	1.64	2 00	18.17	1	9.4	2.28	1 33					
18.61	1	1.2	0.31	7 42	18.78	1	3.7	0.90	10 12	16.94	3	6.8	1.64	0 20	18.87	1	9.6	2.32	7 13					
18.34	1	1.4	0.34	3 13	18.87	1	3.7	0.91	0 10	18.87	1	6.8	1.64	7 49	18.78	1	9.7	2.34	3 51					
16.69	3	1.4	0.34	4 24	18.87	1	3.8	0.92	0 47	17.66	3	6.8	1.64	10 56	17.88	3	9.7	2.35	3 29					
18.78	1	1.4	0.35	7 13	18.78	1	3.8	0.93	12 06	17.52	3	6.9	1.67	6 39	17.70	3	9.7	2.35	12 03					
18.17	1	1.5	0.36	10 32	17.57	3	3.9	0.94	6 41	17.19	3	6.9	1.68	5 56	18.78	1	9.7	2.35	10 25					
17.86	3	1.5	0.37	10 06	18.87	1	3.9	0.95	7 12	18.87	1	6.9	1.68	6 29	17.69	3	9.7	2.36	11 58					
17.91	3	1.5	0.37	12 03	16.60	6	3.9	0.96	8 56	18.87	1	7.0	1.69	6 03	16.94	3	9.7	2.36	5 19					
17.55	3	1.5	0.37	14 41	18.52	1	3.9	0.96	3 45	16.84	2	7.0	1.69	4 40	18.69	1	9.9	2.39	11 50					
17.26	3	1.5	0.37	14 58	18.78	1	3.9	0.96	11 42	14.99	10	7.0	1.70	4 37	18.00	1	9.9	2.40	14 07					
17.66	3	1.6	0.38	1 45	18.04	2	4.0	0.97	12 02	17.71	3	7.0	1.70	12 15	18.52	1	9.9	2.40	2 05					
17.44	3	1.7	0.41	12 41	16.42	5	4.1	0.99	0 06	18.87	1	7.1	1.73	8 18	18.52	1	9.9	2.41	10 07					
16.92	3	1.8	0.43	10 27	18.69	1	4.2	1.03	13 49	17.85	3	7.1	1.73	9 37	18.87	1	9.9	2.41	2 59					
18.96	1	1.9	0.44	6 11	18.61	1	4.2	1.03	13 00	14.89	11	7.3	1.76	5 56	18.78	1	10.0	2.42	9 24					
17.82	3	1.9	0.44	7 19	17.34	3	4.2	1.03	11 51	18.09	1	7.3	1.77	1 53	18.68	2	10.1	2.45	1 13					
18.87	1	1.9	0.45	9 10	18.87	1	4.2	1.03	9 20	15.86	9	7.4	1.79	0 13	18.52	1	10.3	2.48	0 46					
17.93	3	1.9	0.45	0 58	18.61	1	4.2	1.03	4 42	18.87	1	7.4	1.79	6 14	17.23	3	10.4	2.50	7 28					
18.87	1	1.9	0.45	10 16	17.74	2	4.2	1.03	0 10	18.33	2	7.4	1.79	13 28	18.78	1	10.4	2.51	7 46					
18.42	2	1.9	0.45	11 15	17.32	3	4.3	1.05	2 05	17.93	3	7.5	1.80	10 04	18.43	1	10.5	2.52	4 36					
18.87	1	1.9	0.46	6 51	18.87	1	4.3	1.05	9 14	18.69	1	7.6	1.82	9 41	18.78	1	10.6	2.54	0 51					
17.11	3	1.9	0.46	5 02	18.87	1	4.4	1.06	5 32	18.26	1	7.6	1.83	2 41	17.70	3	10.6	2.54	6 54					
18.78	1	2.0	0.47	2 27	16.25	7	4.4	1.06	10 43	16.68	3	7.6	1.83	12 46	18.17	1	10.6	2.54	6 59					
18.78	1	2.0	0.47	12 15	18.69	1	4.5	1.09	13 32	16.77	3	7.7	1.84	9 18	17.39	3	10.6	2.55	9 39					
18.69	1	2.0	0.48	12 54	17.46	3	4.6	1.10	13 11	16.62	3	7.7	1.86	6 51	18.78	1	10.6	2.56	2 40					
18.87	1	2.1	0.49	1 14	16.69	3	4.6	1.10	0 11	17.45	3	7.7	1.86	12 09	16.87	3	10.7	2.57	7 12					
17.60	2	2.2	0.53	8 09	16.46	7	4.6	1.11	9 03	17.65	3	7.8	1.87	12 39	17.53	3	10.8	2.60	12 58					
18.69	1	2.3	0.54	10 37	18.43	1	4.8	1.15	0 58	16.83	3	7.8	1.88	5 53	18.78	1	10.8	2.61	3 38					
17.64	3	2.3	0.54	3 19	16.54	7	4.8	1.16	11 20	18.78	1	7.9	1.89	8 08	17.98	2	10.9	2.62	1 59					
15.40	10	2.3	0.55	2 14	17.29	3	4.9	1.17	12 29	18.78	1	7.9	1.91	2 57	16.16	8	11.0	2.65	0 12					
18.87	1	2.5	0.59	5 20	18.87	1	4.9	1.17	3 40	18.09	1	8.0	1.92	11 53	18.78	1	11.0	2.66	1 27					
18.87	1	2.5	0.59	0 45	16.83	3	4.9	1.18	2 20	17.84	3	8.1	1.94	10 56	16.23	8	11.1	2.67	2 38					
17.91	1	2.5	0.59	1 25	18.09	2	5.1	1.22	7 22	18.43	1	8.1	1.94	8 23	18.87	1	11.1	2.68	3 29					
17.78	3	2.5	0.60	11 58	17.35	3	5.1	1.23	2 15	18.87	1	8.1	1.95	5 44	14.69	10	11.2	2.69	6 34					
17.56	3	2.5	0.60	10 34	16.81	4	5.2	1.24	3 24	17.24	3	8.3	2.00	9 29	17.52	3	11.2	2.69	11 38					
18.69	1	2.5	0.60	13 02	16.14	7	5.2	1.24	14 31	17.09	3	8.5	2.04	9 51	18.78	1	11.2	2.70	1 09					
18.69	1	2.6	0.62	3 54	15.68	9	5.4	1.29	11 39	16.86	3	8.5	2.04	4 59	18.69	1	11.2	2.70	9 18					
18.43	1	2.6	0.63	13 39	17.92	3	5.4	1.30	8 05	17.56	3	8.5	2.05	13 54	17.33	3	11.2	2.70	12 55					
16.97	3	2.7	0.66	5 05	18.87	1	5.6	1.34	1 09	17.74	3	8.6	2.08	2 15	16.67	3	11.3	2.72	7 27					
16.40	7	2.7	0.66	8 41	16.46	5	5.6	1.35	0 18	16.34	5	8.7	2.09	1 38	17.23	3	11.4	2.74	12 12					
17.99	2	2.8	0.68	14 04	18.09	1	5.6	1.35	0 14	18.87	1	8.7	2.10	6 45	18.78	1	11.4	2.74	7 37					

25 prec. + 85ˢ5, − 1′ 42″

1s—60s					61s—120s					121s—180s					181s—240s					241s—286s				
Mag.		α 11^m	x	$y-70'$ $y-10'$	Mag.		α 12^m	x	$y-70'$ $y-10'$	Mag.		α 12^m	x	$y-70'$ $y-10'$	Mag.		α 12^m	x	$y-70'$ $y-10'$	Mag.		α 13^m	x	$y-10'$
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
17.51	2	57	84.9	3.5	17.09	2	7	87.2	10.3	17.60	2	30	92.8	15.5	16.72	2	50	97.7	57.3	16.94	2	14	3.5	0.4
16.46	2	58	85.1	2.2	17.27	2	7	87.2	12.4	16.52	4	31	92.9	58.6	17.79	2	50	97.7	58.7	16.62	4	14	3.5	9.3
16.60	2	58	85.1	4.7	16.80	2	7	87.3	0.4	17.43	2	31	92.9	15.6	16.78	2	51	97.9	56.8	8.35	3	15	3.6	6.7
16.72	2	58	85.1	6.8	17.72	2	7	87.3	4.9	15.62	7	31	93.0	55.0	17.35	2	51	97.9	57.2	16.19	6	15	3.6	7.3
16.16	6	58	85.1	8.4	16.65	2	7	87.3	7.0	16.70	2	31	93.0	57.2	17.08	2	51	97.9	59.1	17.22	2	15	3.6	8.7
17.54	2	58	85.2	2.0	16.88	2	7	87.3	10.4	15.94	8	31	93.1	59.8	17.39	2	52	98.2	57.5	17.32	2	15	3.6	9.6
17.62	2	59	85.2	4.6	16.00	7	8	87.4	3.9	17.28	2	32	93.2	55.3	15.62	7	53	98.2	15.4	17.44	2	15	3.7	10.1
17.72	2	59	85.2	5.5	16.94	2	8	87.4	9.0	17.37	2	32	93.2	56.0	16.44	2	53	98.3	55.4	16.92	2	16	3.8	11.2
17.75	2	59	85.2	5.9	17.04	2	8	87.5	3.2	15.94	7	32	93.2	57.6	16.74	2	53	98.3	59.6	17.24	2	16	3.9	0.1
16.16	5	59	85.2	7.6	16.16	7	8	87.6	59.4	16.29	6	32	93.2	58.4	15.80	8	53	98.4	55.9	14.72	9	16	3.9	4.3
14.86	9	59	85.3	1.8	16.54	2	9	87.6	11.7	16.61	2	32	93.4	55.4	17.41	2	54	98.6	55.4	16.58	2	16	3.9	10.4
17.66	2	59	85.3	3.0	16.30	6	9	87.8	1.2	17.22	2	33	93.4	57.7	15.82	8	54	98.6	55.5	14.46	8	17	4.0	3.8
16.30	6	59	85.3	5.4	17.13	2	9	87.8	6.4	17.20	2	33	93.6	56.3	14.40	10	55	98.9	58.2	17.00	2	17	4.0	5.8
17.62	2	59	85.3	6.4	17.24	2	9	87.8	13.0	16.60	2	33	93.6	58.6	17.68	2	56	99.0	15.3	16.64	2	17	4.1	3.4
16.80	2	60	85.5	9.6	14.32	10	10	87.9	2.3	16.20	4	34	93.8	57.4	16.50	4	57	99.2	57.2	16.21	4	17	4.1	5.4
17.37	2	60	85.6	2.0	17.60	2	10	87.9	4.2	16.42	5	35	94.0	57.4	17.72	2	57	99.2	58.4	17.81	2	17	4.1	6.1
16.65	2	60	85.6	5.0	17.34	2	10	87.9	8.2	17.02	2	36	94.2	55.0	17.12	2	57	99.2	58.8	17.40	2	17	4.2	10.4
11.85	11	61	85.7	8.6	17.05	2	10	87.9	9.4	17.28	2	37	94.4	56.4	14.59	8	57	99.3	55.6	17.60	2	19	4.5	0.6
16.22	6	61	85.7	9.8	16.58	2	12	88.4	59.0	17.44	2	37	94.5	56.6	17.16	2	58	99.4	58.9	17.48	2	19	4.6	1.3
17.55	2	61	85.8	3.2	11.43	10	13	88.6	57.1	16.30	4	37	94.5	58.7	13.87	9	58	99.6	57.2	17.45	2	19	4.6	2.2
16.54	2	61	85.8	4.1	16.31	6	13	88.8	58.1	16.28	6	37	94.6	55.9	17.08	2	59	99.8	57.3	16.28	6	19	4.6	5.2
16.62	2	61	85.8	6.8	17.58	2	15	89.1	58.2	16.52	2	38	94.7	55.4	17.50	2	60	0.0	56.7	17.64	2	19	4.6	7.2
16.72	2	62	85.9	1.4	16.39	4	17	89.6	58.2	17.00	2	38	94.7	58.4	17.12	2	60	0.0	57.6	16.98	2	19	4.7	9.8
16.51	2	62	85.9	7.2	17.68	2	18	89.9	58.0	16.72	2	38	94.7	16.0	17.72	2	60	0.1	58.0	17.49	2	20	4.8	7.2
17.08	2	62	85.9	8.8	16.96	2	18	89.9	58.8	17.70	2	38	94.8	56.8	17.56	2	60	0.1	58.8	17.32	2	20	4.8	8.6
16.58	4	62	85.9	9.7	17.44	2	19	90.1	59.6	17.70	2	39	94.9	54.7	13.96	10	61	0.2	58.8	17.43	2	20	4.9	1.2
17.10:	2	62	86.0	6.2	17.54	2	19	90.2	56.7	17.19	2	39	95.0	54.7	17.86	2	61	0.3	58.6	17.74	2	21	5.0	1.4
16.96	2	62	86.0	6.8	17.54	2	19	90.2	58.8	17.24	2	39	95.0	15.1	16.55	4	62	0.4	59.4	16.71	2	21	5.0	10.2
16.68	2	62	86.0	7.0	17.36	2	19	90.2	59.8	17.68	2	40	95.1	57.6	16.48	4	62	0.6	58.0	15.98	6	21	5.1	5.0
17.06	2	62	86.1	1.4	17.64	2	20	90.4	57.4	17.52	2	40	95.2	55.2	17.74	2	62	0.6	0.0	17.51	2	21	5.1	10.1
16.19	6	63	86.2	5.1	17.47	2	21	90.6	57.6	16.34	6	40	95.2	55.6	16.60	2	63	0.8	56.5	17.03	2	21	5.2	4.4
16.84	2	63	86.2	5.4	17.30	2	21	90.6	58.4	15.31	8	40	95.2	57.0	16.32	2	64	1.0	58.2	15.56	6	22	5.2	5.3
16.84	2	63	86.3	3.9	17.58	2	21	90.7	57.7	16.94	2	40	95.2	59.2	17.54	2	65	1.1	59.3	16.62	2	22	5.2	10.0
16.66	2	63	86.3	5.2	16.70	2	22	90.8	56.6	17.55	2	40	95.2	15.4	16.92	2	66	1.4	57.1	15.63	7	22	5.3	2.2
14.38	10	63	86.4	0.4	17.41	2	22	90.8	59.3	17.04	2	41	95.3	56.2	17.04	2	67	1.6	56.8	17.14	2	22	5.3	3.7
16.96	2	63	86.4	9.6	17.58	2	22	90.9	57.1	16.54	4	41	95.4	56.0	16.80	2	67	1.6	58.6	17.10	2	22	5.3	6.1
16.60	2	64	86.5	1.3	16.44	2	23	91.0	57.0	16.15	6	41	95.4	57.9	17.62	2	66	1.6	59.2	17.74	2	22	5.3	7.7
17.58	2	64	86.5	4.2	16.32	6	23	91.0	58.5	17.62	2	41	95.4	15.4	16.64	4	66	1.6	59.7	17.22	2	23	5.4	9.0
17.30	2	64	86.6	59.8	17.13	2	23	91.0	59.6	13.37	11	42	95.6	56.2	16.16	7	67	1.8	59.2	16.34	6	23	5.6	3.7
17.30	2	64	86.6	1.8	14.60	9	24	91.2	56.7	16.60	2	43	96.0	55.0	17.58	2	69	2.1	58.5	16.18	6	24	5.7	2.0
17.73	2	64	86.6	4.3	15.88	6	24	91.4	58.5	12.64	14	43	96.0	55.4	16.62	2	70	2.5	57.7	17.20	2	24	5.7	7.0
15.57	8	64	86.6	4.7	17.63	2	24	91.4	58.7	16.96	2	43	96.0	55.8	16.00	7	71	2.6	59.4	15.45	8	24	5.8	4.8
17.17	2	65	86.6	5.8	16.80	2	25	91.5	58.0	17.32	2	43	96.0	57.6	16.82	2	72	2.9	57.6	16.18	6	24	5.8	8.6
17.39	2	65	86.6	11.4	17.64	2	25	91.6	57.1	14.42	10	43	96.0	59.6	17.48	2	72	2.9	58.8	17.16	2	25	6.0	5.6
17.41	2	65	86.7	59.2	16.36	6	26	91.8	55.2	17.41	2	44	96.1	59.2	17.41	2	72	2.9	59.6	17.13	2	25	6.0	6.6
17.27	2	65	86.7	59.4	16.05	7	26	91.8	55.4	16.07	7	45	96.3	59.1	17.24	2	72	3.0	58.2	16.58	2	25	6.2	4.4
17.16	2	65	86.8	5.3	17.75	2	26	91.8	58.4	17.50	2	45	96.3	15.6	16.30	6	72	3.0	8.1					
17.12	2	65	86.8	6.4	16.88	2	26	91.8	59.2	17.35	2	45	96.4	56.5	17.38	2	73	3.1	59.0					
17.22	2	65	86.8	6.7	17.12	2	26	91.9	57.6	15.96	7	45	96.4	59.6	17.36	2	73	3.1	3.3					
17.48	2	66	86.8	8.0	17.13	2	27	92.0	56.6	18.01	2	46	96.5	58.5	16.78	2	73	3.2	58.8					
17.08	2	65	86.8	9.6	17.72	2	27	92.0	57.4	17.56	2	46	96.6	55.8	16.42	2	73	3.2	1.8					
16.14	6	66	86.8	11.3	16.68	2	27	92.0	57.8	17.89	2	46	96.6	59.8	17.72	2	73	3.2	3.3					
16.22:	6	66	86.8	11.4	16.54	2	27	92.0	58.8	17.02	2	46	96.6	15.3	15.74	6	73	3.2	7.0					
13.13	13	66	87.0	59.7	16.50	2	28	92.3	57.4	16.47	2	47	97.0	56.6	17.22	2	73	3.2	8.5					
16.98	2	66	87.0	2.5	17.56	2	28	92.3	15.6	17.10	2	48	97.2	56.8	17.50	2	73	3.2	8.6					
17.42	2	67	87.1	9.0	17.36	2	28	92.4	58.6	17.32	2	48	97.2	59.3	16.80	2	73	3.2	10.4					
16.48	2	67	87.2	59.7	17.23	2	29	92.6	59.0	17.36	2	49	97.3	59.3	17.09	2	74	3.3	1.3					
16.72	2	67	87.2	3.1	17.42	2	30	92.8	57.8	17.68	2	49	97.4	59.1	16.27	6	74	3.3	9.0					
17.08	2	67	87.2	3.3	15.88	7	30	92.8	58.6	17.06	2	50	97.6	57.1	17.84	2	74	3.4	8.0					
15.70	7	67	87.2	7.1	17.98	2	30	92.8	59.6	15.06	8	50	97.6	59.0	17.26	2	74	3.4	10.6					

25 prec. + 85^s.5, − 1′ 42″

Area 134. Center for 1900: 18^{h} 10^{m} − 15° 0′ (15′ × 15′)

1—60				61—120				121—180				181—240				241—300			
Mag.	α 9^{m}	x	$y-60'$ y	Mag.	α 9^{m}	x	$y-60'$ y	Mag.	α 9^{m}	x	$y-60'$ y	Mag.	α 9^{m}	x	$y-60'$ y	Mag.	α 10^{m}	x	$y-60'$ y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
15.10 9	47.6	97.00	50 41	18.07 1	52.0	98.08	54 46	16.67 3	55.7	98.97	4 29	17.24 3	58.9	99.72	51 22	17.82 3	1.9	0.46	50 59
18.14 1	47.8	97.04	4 09	17.75 3	52.0	98.08	55 17	18.27 1	55.8	98.98	1 11	17.90 3	58.9	99.73	4 38	16.10 9	2.0	0.47	1 31
17.45 3	48.2	97.15	2 25	17.26 3	52.0	98.08	56 11	12.92 13	55.8	98.99	59 04	17.00 3	59.0	99.74	2 30	17.22 3	2.0	0.48	54 09
17.89 3	48.3	97.17	57 33	15.10 9	52.1	98.09	55 56	17.54 3	56.0	99.02	50 48	16.30 7	59.0	99.74	58 06	17.22 3	2.0	0.48	58 42
13.57 11	48.3	97.18	51 30	17.49 3	52.1	98.09	50 17	17.71 3	56.1	99.04	50 04	17.63 3	59.0	99.75	1 15	17.45 3	2.1	0.49	2 31
17.38 3	48.3	97.18	58 29	17.73 3	52.3	98.16	56 23	16.96 3	56.1	99.04	57 35	17.26 3	59.0	99.76	0 24	15.97 9	2.2	0.53	57 06
17.68 3	48.4	97.19	58 26	15.95 9	52.5	98.21	59 03	18.20 1	56.1	99.06	3 30	14.07 11	59.2	99.81	4 30	18.02 2	2.3	0.54	56 59
17.43 3	48.4	97.21	59 40	16.43 5	52.6	98.22	53 04	17.64 2	56.1	99.06	54 46	15.46 9	59.4	99.84	57 10	15.64 9	2.3	0.55	58 18
17.82 3	48.5	97.22	56 30	15.44 9	52.8	98.27	56 01	17.28 3	56.1	99.06	54 35	13.23 9	59.4	99.85	3 14	18.27 1	2.3	0.56	56 06
18.14 1	48.6	97.25	2 41	17.25 3	52.9	98.29	51 24	17.63 3	56.2	99.07	53 13	16.11 8	59.4	99.86	53 26	17.87 3	2.5	0.59	2 38
16.63 3	48.6	97.25	1 31	16.01 9	53.0	98.30	54 16	15.15 10	56.5	99.16	4 12	16.64 3	59.4	99.86	4 05	16.92 5	2.5	0.59	56 44
15.05 10	48.6	97.26	52 59	14.70 11	53.1	98.32	56 44	16.83 3	56.6	99.18	56 22	18.20 1	59.4	99.86	3 44	16.47 5	2.5	0.59	4 27
17.83 3	48.7	97.27	52 42	17.09 3	53.2	98.34	4 29	14.02 12	56.7	99.20	55 12	16.27 8	59.5	99.88	0 00	17.77 3	2.5	0.59	54 28
16.93 3	48.7	97.28	51 23	13.69 11	53.2	98.35	53 18	18.20 1	56.7	99.21	3 33	14.50 11	59.5	99.88	55 38	17.12w 2	2	0.6	55 48
15.87 8	48.8	97.30	0 53	17.57 3	53.2	98.35	59 39	17.79 3	56.9	99.26	2 23	17.39 3	59.6	99.89	4 51	17.33 3	2.6	0.62	2 14
18.14 1	48.9	97.32	0 28	17.85 3	53.2	98.36	57 50	17.54 3	56.9	99.26	50 48	17.21 3	59.6	99.90	50 26	15.30 9	2.7	0.66	56 08
14.48 12	49.0	97.35	2 48	17.42 1	53.2	98.36	2 51	17.87 3	56.9	99.26	57 56	16.11 9	59.6	99.91	54 54	16.81 5	2.8	0.68	57 39
16.08 8	49.0	97.35	59 21	17.87 3	53.4	98.39	0 26	17.73 3	57.0	99.27	56 05	15.51 2	59.6	99.91	3 14	17.83 3	2.8	0.68	2 45
17.25 3	49.2	97.40	56 42	18.14 1	53.4	98.39	55 10	15.76 9	57.0	99.28	58 59	16.16 8	59.8	99.94	56 56	17.83 3	2.9	0.69	3 49
16.36 5	49.3	97.42	52 10	17.87 3	53.4	98.39	58 50	15.47 8	57.1	99.31	58 57	18.27 1	59.9	99.97	58 41	18.14 1	2.9	0.69	50 20
18.00 1	49.3	97.42	51 37	17.68 3	53.4	98.41	54 45	18.20 1	57.2	99.33	3 18	18.20 1	59.9	99.97	4 18	17.99 3	3.0	0.72	59 01
17.56 3	49.3	97.43	51 05	18.14 1	53.5	98.43	3 17	17.31 3	57.3	99.36	58 49	17.82 3	59.9	99.98	4 10	16.21 7	3.0	0.72	0 55
16.73 3	49.4	97.44	2 02	17.27 3	53.6	98.45	59 43	15.90 9	57.3	99.36	55 48	15.84 9	60.0	0.00	56 08	17.68 2	3.0	0.73	57 09
17.07 3	49.4	97.45	4 13	14.97 10	53.6	98.46	59 17	17.79 3	57.3	99.36	51 17	17.56 3	60.1	0.03	2 25	17.26 2	3.0	0.73	2 59
18.07 1	49.5	97.48	52 41	17.09 3	53.7	98.48	0 16	17.08 3	57.4	99.37	51 43	17.21 3	60.2	0.05	0 59	14.75 10	3.1	0.75	1 52
15.02 9	49.5	97.48	54 31	18.14 1	53.8	98.49	52 25	15.93 5	57.4	99.38	50 32	17.88 2	60.2	0.05	58 29	15.74 4	3.1	0.76	0 21
17.72 3	49.6	97.49	0 11	17.81 3	53.8	98.50	4 53	15.64 9	57.4	99.38	58 24	17.82 2	60.3	0.07	59 17	17.93 2	3.2	0.77	56 20
17.95 2	49.6	97.51	59 00	17.58 1	53.8	98.51	54 29	16.20 6	57.5	99.39	1 35	16.09 9	60.3	0.08	53 45	18.07 3	3.3	0.79	55 29
18.20 1	49.7	97.52	1 00	17.62 3	53.9	98.53	2 47	17.74 3	57.6	99.42	50 52	16.95 3	60.3	0.08	0 35	17.65 1	3.3	0.80	0 48
16.12 9	49.7	97.53	1 45	15.18 8	54.0	98.55	2 43	17.96 3	57.6	99.42	55 18	17.83 3	60.4	0.09	2 42	15.86 9	3.5	0.86	51 38
16.67 5	49.9	97.56	54 24	16.51 5	54.0	98.56	3 44	18.00 1	57.6	99.42	0 16	18.27 1	60.4	0.10	0 04	16.58 3	3.5	0.86	2 52
17.78 3	49.9	97.56	2 09	15.65 8	54.0	98.56	3 09	17.75 3	57.6	99.42	0 25	16.88 5	60.4	0.10	59 43	16.98 3	3.6	0.88	1 33
17.05 3	49.9	97.57	4 19	17.71 2	54.1	98.58	55 19	18.20 1	57.6	99.43	1 51	17.28 3	60.4	0.11	52 33	18.27 1	3.7	0.90	2 28
17.89 3	49.9	97.57	53 50	16.56 5	54.3	98.63	1 15	17.22 3	57.7	99.45	3 39	16.22 9	60.5	0.12	53 34	16.59 3	3.8	0.93	54 34
13.17 12	50.1	97.60	54 53	16.96 3	54.4	98.64	50 24	16.76 2	57.7	99.45	3 11	17.74 3	60.6	0.15	2 41	17.88 2	3.9	0.94	0 39
16.50 5	50.2	97.62	55 25	18.00 1	54.4	98.66	55 47	17.85 3	57.7	99.45	59 33	17.94 3	60.6	0.16	57 29	18.27 1	3.9	0.95	2 19
17.87 3	50.2	97.63	1 56	18.14 1	54.6	98.69	3 32	12.59 14	57.7	99.46	1 37	18.20 1	60.7	0.17	55 20	14.00 12	3.9	0.96	51 38
18.07 1	50.2	97.63	51 39	17.16 3	54.7	98.72	56 51	16.16 8	57.7	99.46	52 01	16.24 7	60.7	0.18	54 14	16.86 5	4.1	1.00	0 37
17.14 3	50.3	97.65	0 46	17.63 3	54.7	98.72	51 32	16.64 5	57.8	99.47	54 29	17.79 3	60.8	0.20	2 39	17.79 3	4.3	1.04	55 21
18.14 1	50.3	97.66	2 55	17.71 3	54.7	98.73	4 40	14.26 12	57.8	99.48	4 24	16.66 3	60.8	0.20	1 32	17.79 3	4.3	1.05	55 59
17.56 3	50.3	97.66	54 45	14.54 12	54.7	98.73	2 08	17.96 3	57.8	99.48	58 09	18.20 1	61.0	0.25	3 41	17.89 3	4.3	1.05	4 43
17.83 3	50.3	97.66	59 30	14.35 12	54.8	98.75	3 00	15.14 9	57.9	99.49	57 16	14.59 10	61.0	0.26	55 56	16.66 3	4.4	1.06	51 07
17.26 3	50.4	97.67	59 38	18.02 2	54.8	98.75	57 01	15.91 9	57.9	99.51	55 45	16.27 8	61.0	0.26	54 38	16.25 6	4.8	1.16	1 51
13.58 13	50.4	97.68	53 54	18.20 1	54.8	98.75	55 21	17.55 3	57.9	99.51	51 50	17.34 3	61.0	0.26	50 36	18.12 2	4.9	1.17	57 04
17.82 3	50.7	97.75	2 21	15.06 9	54.9	98.77	2 53	13.46 13	58.0	99.53	57 40	17.93 3	61.1	0.28	52 52	17.08 3	4.9	1.18	3 52
17.86 3	50.7	97.75	2 28	17.62 3	55.0	98.79	52 07	14.85 9	58.1	99.55	54 45	16.74 2	61.1	0.28	55 37	16.43 5	5.0	1.19	2 58
18.20 1	50.8	97.77	57 25	15.59 9	55.1	98.82	3 27	17.59 3	58.1	99.55	1 12	18.20 1	61.2	0.30	3 19	17.83 2	5.0	1.21	3 29
17.76 3	51.0	97.83	3 35	17.00 3	55.1	98.82	4 32	17.81 3	58.1	99.56	3 45	16.94 2	61.2	0.31	1 41	17.21 3	5.0	1.21	58 55
18.07 1	51.1	97.84	51 50	16.86 3	55.2	98.84	4 07	17.89 3	58.4	99.63	51 42	17.64 2	61.2	0.31	1 25	17.78 2	5.0	1.21	59 26
18.14 1	51.1	97.86	4 25	17.05 3	55.2	98.84	3 49	17.84 3	58.5	99.64	3 55	11.38 8	61.3	0.32	2 24	17.53 3	5.1	1.22	3 19
11.59 11	51.1	97.86	1 29	17.98 2	55.2	98.85	4 49	18.20 1	58.5	99.65	2 06	16.58 5	61.4	0.34	4 27	17.65 3	5.2	1.25	54 19
16.27 8	51.3	97.89	57 24	15.57 9	55.2	98.85	3 57	17.60 3	58.6	99.66	58 54	17.04 3	61.4	0.35	1 09	14.71 10	5.2	1.26	1 36
17.11 3	51.3	97.91	59 24	17.67 3	55.2	98.85	53 38	16.21 9	58.7	99.68	59 04	15.95 9	61.4	0.35	0 44	16.11 8	5.2	1.26	52 27
17.96 2	51.4	97.93	55 40	17.02 3	55.2	98.86	54 15	14.61 7	58.7	99.68	54 43	17.14 3	61.5	0.36	4 13	18.20 1	5.3	1.27	53 34
14.17 11	51.4	97.93	2 19	17.72 1	55.2	98.86	58 55	16.03 8	58.7	99.68	54 22	17.50 3	61.5	0.37	0 56	16.32 7	5.3	1.28	0 32
16.44 3	51.6	97.97	54 28	17.50 3	55.2	98.86	57 41	15.72 4	58.7	99.68	54 47	18.27 1	61.5	0.37	59 00	16.01 9	5.4	1.29	52 06
17.71 3	51.6	97.98	51 12	18.04 2	55.4	98.91	57 14	18.07 1	58.7	99.68	53 15	17.80 2	61.5	0.37	50 54	18.33 1	5.4	1.30	0 00
17.86 3	51.7	97.99	59 38	15.28 9	55.5	98.92	50 32	17.78 2	58.7	99.69	57 08	18.14 1	61.8	0.42	50 29	18.33 1	5.5	1.32	0 46
18.14 1	51.7	98.00	2 49	12.53 14	55.5	98.93	57 23	14.20 12	58.7	99.69	55 26	18.27 1	61.8	0.43	0 12	14.40 12	5.5	1.32	54 38
15.55 7	52.0	98.07	51 32	17.86 3	55.7	98.96	1 20	17.45 2	58.8	99.71	57 59	16.74 3	61.9	0.44	51 06	17.56 3	5.5	1.33	3 51

25 prec. + $85^{s}.7$, + 0′ 22″

301—360					361—420					421—480					481—540					541—600				
Mag.		α 10ᵐ	x	y−60′ / y	Mag.		α 10ᵐ	x	y−60′ / y	Mag.		α 10ᵐ	x	y−60′ / y	Mag.		α 10ᵐ	x	y−60′ / y	Mag.		α 10ᵐ	x	y−60′ / y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
16.23	7	5.6	1.34	4 15	17.98	3	8.9	2.14	1 15	17.29	3	12.4	2.99	2 02	18.09	2	17.2	4.16	57 55	18.33	2	21.6	5.22	55 33
15.66	8	5.7	1.35	55 00	17.80	2	8.9	2.16	0 31	17.89	3	12.7	3.07	50 01	18.14	3	17.3	4.17	56 48	17.34	3	21.6	5.23	4 04
18.33	1	5.7	1.36	0 20	17.07	3	9.0	2.18	54 51	12.59	12	12.7	3.07	0 05	18.27	1	17.4	4.19	53 38	17.82	2	21.8	5.28	53 20
15.68	9	5.7	1.37	56 05	18.33	1	9.1	2.19	56 31	16.82	3	12.7	3.07	0 10	16.43	5	17.4	4.19	54 30	17.80	2	21.9	5.30	0 35
16.63	5	5.7	1.38	58 30	17.98	3	9.2	2.23	2 04	18.27	1	12.7	3.08	56 19	16.47	5	17.4	4.21	54 26	18.04	2	21.9	5.31	57 49
17.12	3	5.8	1.39	59 39	17.41	3	9.3	2.25	0 02	17.95	2	12.8	3.10	3 05	17.98	2	17.5	4.22	4 46	17.92	3	22.2	5.37	50 42
15.99	9	5.8	1.40	57 51	17.71	3	9.3	2.25	4 57	17.42	3	13.0	3.15	0 09	17.90	3	17.6	4.24	3 52	18.27	1	22.2	5.37	54 10
17.33	3	5.9	1.42	57 41	16.96	3	9.3	2.26	3 10	15.45	9	13.0	3.16	51 20	18.46	1	17.6	4.24	57 55	18.46	1	22.3	5.39	58 54
18.14	1	5.9	1.42	54 14	13.59	12	9.4	2.28	54 16	18.20	1	13.0	3.16	53 02	15.92	9	17.6	4.26	58 27	17.40	3	22.4	5.40	4 25
18.08	2	6.0	1.46	2 49	16.96	3	9.4	2.28	58 00	17.83	3	13.2	3.21	4 19	15.67	9	17.6	4.26	52 00	17.72	3	22.4	5.40	4 53
16.21	9	6.1	1.47	52 54	17.12	3	9.4	2.28	59 41	18.39	1	13.4	3.25	0 34	16.08	8	17.7	4.27	50 25	18.27	1	22.5	5.43	53 47
16.13	8	6.2	1.49	50 05	17.43	3	9.4	2.28	59 56	16.24	5	13.5	3.26	4 58	16.78	5	17.7	4.28	59 14	13.84	13	22.6	5.44	1 57
16.47	7	6.2	1.49	53 01	18.14	1	9.5	2.29	57 20	15.51	8	13.6	3.28	50 02	17.79	3	17.9	4.33	0 32	16.65	3	22.6	5.45	4 56
18.33	1	6.2	1.49	57 18	15.62	9	9.5	2.29	4 23	17.18	3	13.6	3.29	3 20	15.84	8	18.0	4.34	2 22	16.47	5	22.6	5.46	4 53
16.51	5	6.2	1.49	4 21	16.59	5	9.5	2.30	53 36	18.09	3	13.7	3.30	55 03	17.81	3	18.0	4.35	0 29	18.33	1	22.6	5.46	57 14
15.97	9	6.3	1.52	56 47	17.86	2	9.7	2.34	2 26	18.04	2	13.7	3.30	55 13	15.37	9	18.0	4.35	50 37	17.86	2	22.7	5.48	58 38
18.27	1	6.3	1.53	1 36	16.47	5	9.7	2.35	2 51	18.13	2	13.7	3.30	59 49	16.37	5	18.0	4.36	52 30	17.84	2	22.7	5.48	51 29
14.29	9	6.4	1.55	54 14	12.28	13	9.8	2.37	58 23	17.98	3	13.8	3.32	2 48	16.49	1	18.0	4.36	57 25	18.15	3	22.8	5.49	55 21
16.63	5	6.5	1.57	1 41	17.08	3	9.9	2.39	58 10	18.39	1	13.9	3.34	58 18	14.73	9	18.1	4.38	59 34	18.39	1	22.9	5.52	57 17
18.00	1	6.5	1.57	56 10	17.81	3	9.9	2.39	58 59	18.20	1	13.9	3.35	52 50	17.70	2	18.1	4.38	54 12	15.65	9	23.0	5.55	4 29
17.78	2	6.6	1.61	50 18	17.20	3	10.1	2.45	51 00	17.12	3	13.9	3.35	54 34	17.24	3	18.1	4.38	50 23	16.59	5	23.0	5.56	54 40
17.86	1	6.6	1.61	58 07	16.70	5	10.1	2.45	1 36	18.39	1	13.9	3.36	59 28	18.39	1	18.3	4.43	0 35	16.59	5	23.1	5.58	57 58
17.86	1	6.7	1.62	59 00	16.85	5	10.2	2.46	1 19	16.91	3	14.1	3.40	3 23	16.02	9	18.4	4.45	1 42	17.86	1	23.1	5.58	57 15
15.28	9	6.7	1.63	3 22	17.71	3	10.2	2.46	0 00	18.33	1	14.3	3.45	57 20	17.11	1	18.4	4.45	57 15	18.26	2	23.2	5.59	56 29
15.80	9	6.7	1.63	2 09	17.80	1	10.2	2.47	59 35	16.73	5	14.4	3.48	54 50	17.11	1	18.4	4.46	57 25	17.08	3	23.2	5.59	55 27
17.77	3	6.8	1.65	2 43	16.94	3	10.2	2.47	56 51	15.47	9	14.5	3.49	55 11	13.80	12	18.5	4.47	56 29	16.96	4	23.4	5.66	56 55
16.77	5	6.8	1.66	55 40	16.44	6	10.2	2.47	51 44	17.35	3	14.5	3.49	56 59	13.96	12	18.6	4.51	57 02	15.26	8	23.5	5.67	54 21
17.26	3	6.9	1.67	59 57	17.72	2	10.4	2.50	59 00	17.14	3	14.5	3.49	1 50	16.49	5	18.8	4.54	51 02	14.59	11	23.6	5.69	55 17
15.35	9	6.9	1.68	56 30	15.20*	2	10.4	2.51	54 59	15.89	9	14.5	3.50	52 25	16.47	5	18.8	4.54	3 09	12.73	15	23.7	5.72	2 52
17.68	3	7.0	1.71	54 30	17.08	3	10.4	2.51	54 04	18.39	1	14.7	3.55	0 18	18.00	2	18.8	4.55	0 44	15.81	9	23.8	5.74	53 29
16.72	7	7.1	1.72	56 36	16.54	5	10.5	2.53	0 55	18.39	1	14.9	3.58	57 58	17.65	2	18.8	4.56	53 52	12.53	13	23.8	5.75	59 38
17.84	2	7.2	1.75	56 23	16.33	1	10.5	2.53	55 01	14.97	10	15.0	3.62	53 05	17.67	3	18.9	4.58	2 41	17.37	3	24.0	5.80	1 44
17.74	3	7.2	1.75	1 51	17.50	1	10.6	2.56	57 59	17.02	3	15.1	3.65	53 10	13.10	13	19.0	4.59	53 11	16.10	8	24.1	5.82	55 40
17.20	2	7.2	1.75	3 49	18.07	3	10.7	2.57	54 00	18.39	1	15.1	3.65	0 56	18.20	1	19.1	4.62	4 47	16.34	7	24.2	5.85	51 59
16.82	3	7.3	1.76	52 10	17.07	3	10.7	2.57	52 17	18.20	2	15.3	3.69	54 22	7.79w	4	19.1	4.63	57 20	15.26	9	24.4	5.91	54 39
16.92	3	7.3	1.76	58 31	16.02	8	10.8	2.60	52 06	16.14	9	15.3	3.71	54 12	18.39	1	19.2	4.65	0 37	16.24	8	24.5	5.93	2 51
16.80	5	7.4	1.78	59 38	15.63	9	10.9	2.62	4 50	17.75	3	15.5	3.74	2 31	17.84	3	19.3	4.67	4 36	18.33	1	24.6	5.94	2 26
17.94	2	7.4	1.79	59 26	18.33	1	10.9	2.63	0 32	14.35	11	15.6	3.77	0 48	18.16	2	19.6	4.73	55 39	18.18	2	24.6	5.96	55 45
15.12	10	7.6	1.82	4 12	13.89	12	11.0	2.64	3 53	16.84	3	15.6	3.77	59 15	16.80	3	19.6	4.73	59 50	17.79	3	24.7	5.97	4 07
17.71	3	7.7	1.84	4 02	17.48	3	11.0	2.66	55 03	17.44	3	15.6	3.77	59 04	17.63	3	19.7	4.75	3 51	18.20	1	24.7	5.97	52 36
17.75	3	7.7	1.85	2 35	14.04	10	11.0	2.66	50 28	15.10	9	15.6	3.78	58 12	17.44	3	19.7	4.76	1 02	17.24	3	24.7	5.98	54 54
17.10	3	7.7	1.85	58 51	16.26	8	11.2	2.69	53 04	17.75	3	15.7	3.81	53 12	17.61	2	19.8	4.78	52 33	17.83	2	24.8	5.99	59 22
17.87	3	7.7	1.86	59 50	15.55	9	11.2	2.69	1 18	18.20	1	15.8	3.83	1 03	18.19	3	19.9	4.79	56 10	18.27	1	24.8	6.00	58 39
16.80	3	7.8	1.88	51 10	17.08	3	11.3	2.73	55 45	16.00	9	15.8	3.83	2 21	17.32w	2	20	4.8	58 30	17.57	3	24.8	6.01	52 18
17.84	2	8.1	1.95	56 13	15.26	8	11.3	2.73	2 31	18.27	1	16.0	3.88	54 43	13.76	13	19.9	4.81	58 52	18.27	1	25.3	6.09	3 41
16.37	7	8.1	1.95	56 19	18.14	1	11.4	2.74	4 58	14.14	12	16.0	3.88	58 04	16.80	3	20.1	4.84	54 16	17.75	2	25.3	6.10	53 54
18.33	1	8.2	1.97	55 40	17.83	3	11.5	2.78	52 34	16.86	3	16.3	3.94	4 45	18.02	3	20.1	4.85	2 11	17.57	3	25.4	6.13	4 25
16.65	5	8.2	1.98	53 56	18.33	1	11.6	2.79	0 01	17.65	3	16.3	3.95	0 59	18.46	1	20.2	4.87	59 59	16.85	5	25.4	6.13	2 13
17.26	3	8.4	2.04	3 08	15.37	9	11.6	2.79	3 40	17.72	2	16.4	3.96	2 00	18.27	1	20.3	4.89	55 33	16.25	7	25.5	6.14	1 25
15.16	9	8.5	2.05	59 35	13.42	12	11.7	2.83	51 18	15.90	9	16.4	3.97	52 16	18.07	2	20.4	4.92	54 56	17.41	3	25.6	6.17	57 38
13.91	12	8.6	2.07	58 01	17.61	3	11.8	2.85	55 53	14.94	9	16.4	3.97	55 34	18.14	1	20.5	4.96	51 10	17.74	2	25.7	6.18	56 25
16.44	7	8.6	2.07	56 00	18.14	1	11.8	2.86	50 41	17.96	2	16.6	4.00	58 36	16.45	7	20.7	4.99	58 29	15.02	9	25.7	6.19	51 08
18.08	2	8.6	2.07	3 00	15.23	9	11.8	2.86	54 30	16.99	3	16.8	4.06	51 06	17.78	2	20.9	5.05	53 00	15.77	7	25.7	6.19	50 55
15.55	9	8.8	2.12	56 02	17.96	2	12.0	2.91	56 29	15.68	9	16.9	4.08	51 19	15.75	9	20.9	5.06	51 53	17.99	3	25.7	6.19	3 14
16.14	7	8.8	2.12	54 36	18.10	2	12.1	2.92	56 50	15.68	9	16.9	4.08	58 57	16.34	8	20.9	5.06	59 39	18.27	1	25.7	6.21	4 17
16.30	7	8.8	2.12	1 59	16.22	5	12.1	2.92	3 27	17.90	2	17.0	4.11	59 27	17.55	3	21.0	5.08	51 24	17.60	3	25.8	6.22	0 37
17.54	3	8.8	2.13	3 28	17.37	3	12.2	2.94	57 52	16.74	1	17.0	4.11	57 17	15.90	9	21.2	5.13	0 30	17.65	3	25.8	6.22	4 43
16.42	4	8.9	2.14	2 29	18.20	1	12.4	2.99	54 11	17.86	2	17.0	4.11	54 47	17.67	3	21.3	5.15	3 40	16.94	5	25.9	6.25	59 08
15.48	9	8.9	2.14	2 12	17.86	2	12.4	2.99	55 21	17.16	3	17.1	4.13	51 25	18.39	1	21.5	5.19	1 10	17.79	3	25.9	6.25	54 26
18.05	3	8.9	2.14	1 10	16.45	7	12.4	2.99	1 10	17.74	2	17.2	4.15	2 06	18.46	1	21.6	5.22	59 29	16.97	2	25.9	6.26	52 57

25 prec. + $85^{s}.7$, + 0′ 23″

601—660				
Mag.		α 10^{m}	x	$y-60'$ y
		s	′	′ ″
17.91	2	25.9	6.26	57 45
17.90	2	25.9	6.26	3 28
16.01	8	26.0	6.28	1 50
18.33	1	26.1	6.30	54 57
18.20	1	26.2	6.32	52 33
16.63	5	26.2	6.33	0 39
18.33	1	26.3	6.34	2 30
18.27	1	26.3	6.35	2 47
15.63	8	26.3	6.36	4 00
18.18	3	26.4	6.37	56 27
17.71	3	26.4	6.38	56 57
10.73w	9	26.5	6.39	1 40
18.20	1	26.6	6.42	3 00
18.39	1	26.6	6.42	59 48
16.96	5	26.6	6.42	56 33
17.04	5	26.6	6.43	1 53
16.89	5	26.7	6.45	2 45
18.39	1	26.7	6.46	58 10
16.63	5	26.8	6.47	0 08
18.33	1	26.9	6.49	0 30
18.29	2	27.1	6.55	55 00
18.15	3	27.1	6.56	55 24
17.73	2	27.3	6.61	51 02
17.65	3	27.4	6.63	4 30
17.68	2	27.5	6.64	54 20
17.66	3	27.5	6.66	54 28
17.70	3	27.5	6.66	0 03
17.64	3	27.6	6.68	54 25
15.78	9	27.6	6.68	52 58
18.09	3	27.7	6.70	1 07
11.01	10	27.8	6.72	55 54
16.60	5	27.8	6.73	2 31
15.35	9	27.9	6.74	51 11
17.74	2	27.9	6.75	53 36
18.39	1	27.9	6.75	59 46
17.09	3	28.0	6.76	3 30
16.99	3	28.0	6.76	53 29
16.38	7	28.1	6.78	58 40
16.72	5	28.3	6.82	51 16
18.39	1	28.3	6.82	1 00
17.67	3	28.4	6.85	59 09
17.50	3	28.4	6.86	54 15
17.03	3	28.5	6.87	58 25
17.07	3	28.6	6.89	59 01
18.06	2	28.6	6.91	56 11
16.19	8	28.7	6.93	0 42
17.21	3	28.9	6.97	53 26
18.12	3	29.2	7.05	58 00
16.52	5	29.5	7.12	53 10
16.33	6	29.5	7.13	50 04
15.69	8	29.5	7.13	0 35
15.12	9	29.6	7.15	52 35
18.22	2	29.6	7.15	59 03
18.39	1	29.7	7.18	56 55
18.06	2	29.8	7.19	56 28
18.10	3	29.8	7.20	0 27
17.96	2	29.9	7.22	53 51
17.25	3	29.9	7.22	54 59
16.22	8	30.0	7.25	2 20
17.42	3	30.0	7.26	58 15

661—720				
Mag.		α 10^{m}	x	$y-60'$ y
		s	′	′ ″
16.36	8	30.1	7.28	58 21
17.83	2	30.2	7.29	2 02
17.72	3	30.2	7.30	1 34
16.97	3	30.4	7.36	52 51
13.65	12	30.7	7.43	4 48
18.39	1	30.8	7.45	58 58
17.94	3	30.9	7.46	3 42
16.04	9	31.1	7.49	3 08
15.98	8	31.2	7.52	52 12
13.42	12	31.2	7.52	53 45
17.80	3	31.3	7.54	2 47
17.20	3	31.3	7.55	54 09
16.27	6	31.3	7.55	50 21
17.46	3	31.3	7.56	53 41
15.71	8	31.3	7.56	51 37
16.91	3	31.3	7.56	1 45
18.39	1	31.4	7.57	59 23
15.40	9	31.5	7.61	57 56
17.88	2	31.5	7.61	55 53
16.90	3	31.5	7.61	52 18
18.07	1	31.6	7.63	50 04
16.01	8	31.7	7.64	58 52
18.33	1	31.7	7.65	1 55
17.46	2	31.8	7.67	4 07
15.12	9	31.8	7.68	55 28
17.92	2	31.9	7.70	56 39
17.82	2	31.9	7.70	57 27
11.92	12	31.9	7.70	55 14
17.71	3	32.0	7.72	4 13
16.06	8	32.0	7.73	4 10
16.95	3	32.1	7.75	51 30
17.02	3	32.3	7.79	57 59
16.51	5	32.3	7.79	56 40
18.33	1	32.4	7.82	57 35
17.72	1	32.4	7.82	58 25
17.92	2	32.5	7.84	56 05
16.15	9	32.5	7.86	56 55
17.08	3	32.5	7.86	2 25
17.29	3	32.8	7.92	58 04
17.30	3	32.8	7.93	2 09
12.96	6	32.8	7.93	1 58
18.07	1	33.0	7.98	0 30
16.78	5	33.0	7.98	59 13
16.84	3	33.2	8.02	54 05
17.11	3	33.2	8.03	0 54
18.05	3	33.2	8.05	54 29
17.87	3	33.4	8.08	50 25
16.26	6	33.5	8.11	56 05
12.27w	12	33.6	8.13	3 41
15.84w	7	33.6	8.13	3 15
18.27	1	33.6	8.13	1 28
17.84	3	33.7	8.15	59 14
17.83	3	33.7	8.16	4 45
17.06	3	33.9	8.20	59 23
18.33	1	34.0	8.22	1 23
18.33	1	34.1	8.24	1 26
15.25	9	34.1	8.25	56 27
15.18	9	34.2	8.26	3 35
17.02	3	34.2	8.27	58 26
16.59	5	34.4	8.31	53 54

721—780				
Mag.		α 10^{m}	x	$y-60'$ y
		s	′	′ ″
16.59	5	34.5	8.33	59 02
16.78	5	34.6	8.34	59 45
11.02	10	34.6	8.36	58 54
11.84	12	34.8	8.39	55 45
14.83	11	34.9	8.42	57 09
18.00	2	35.0	8.44	56 20
15.63	7	35.0	8.45	53 09
16.91	4	35.0	8.46	57 16
17.81	2	35.1	8.48	57 39
15.20	9	35.4	8.55	1 28
17.77	3	35.4	8.55	58 58
18.20	1	35.4	8.56	51 19
16.28	7	35.5	8.58	58 28
15.41	8	35.6	8.59	1 53
16.81	3	35.7	8.62	2 10
17.80d	1	35.8	8.65	2 29
16.42	5	35.8	8.65	50 38
18.33	1	35.8	8.65	59 06
16.72	5	35.9	8.68	58 40
16.47	5	35.9	8.68	57 06
17.30	3	36.0	8.69	59 54
16.95	3	36.1	8.72	55 54
18.13	2	36.2	8.75	2 09
18.05	3	36.3	8.78	59 13
13.65	12	36.3	8.78	52 56
18.14	1	36.5	8.82	50 45
10.28w	8	36.5	8.83	0 57
15.30	8	36.6	8.84	53 08
16.75	5	36.6	8.86	0 26
15.97	8	36.6	8.86	57 40
16.08	9	36.8	8.89	53 28
16.44	6	36.9	8.92	52 24
18.14	1	37.1	8.96	59 19
16.52	3	37.2	8.98	50 38
18.33	1	37.3	9.00	59 32
17.14	3	37.3	9.01	57 51
16.28	8	37.4	9.02	56 54
15.85	9	37.5	9.04	1 32
16.62	5	37.5	9.05	59 41
17.30	3	37.6	9.08	57 51
17.95	3	37.9	9.15	4 39
18.27	1	38.0	9.17	58 32
18.14	1	38.1	9.20	51 13
17.69	3	38.3	9.25	1 15
16.34	5	38.5	9.29	4 42
15.96	8	38.5	9.29	3 44
16.43	5	38.8	9.37	56 18
18.27	1	38.8	9.38	57 09
17.76	3	38.9	9.40	3 40
17.97	3	39.0	9.42	0 20
15.48	9	39.0	9.42	58 28
17.65	3	39.1	9.46	3 06
17.45	3	39.4	9.52	4 27
16.20	8	39.4	9.52	3 03
17.63	3	39.4	9.52	59 00
13.86	12	39.5	9.54	0 26
18.20	1	39.5	9.55	59 55
16.50	5	39.5	9.56	2 55
12.85	10	39.6	9.57	3 26
15.94	9	39.6	9.57	54 39

781—840				
Mag.		α 10^{m}	x	$y-60'$ y
		s	′	′ ″
16.99	3	39.6	9.58	59 31
16.00	8	39.6	9.58	3 30
17.07	3	39.9	9.65	52 06
18.01	3	40.1	9.68	57 07
17.35	3	40.1	9.68	58 04
16.69	5	40.2	9.71	52 17
16.48	5	40.2	9.71	3 43
15.06	10	40.3	9.73	4 32
17.41	3	40.4	9.74	0 27
17.76	2	40.4	9.74	57 05
17.01	3	40.4	9.76	52 18
18.27	1	40.5	9.77	56 41
16.48	5	40.6	9.79	55 32
17.92w	2	41	9.8	53 00
18.08	2	40.6	9.81	57 04
15.44	9	40.7	9.82	53 22
18.20	1	40.8	9.85	4 50
18.00	1	40.9	9.87	3 23
17.73	3	40.9	9.87	52 15
17.11	3	40.9	9.88	59 11
17.18	3	41.0	9.91	3 11
16.45	5	41.0	9.91	50 24
16.13	8	41.1	9.92	55 29
15.88	8	41.1	9.93	54 15
17.82	3	41.1	9.95	2 35
16.63	5	41.2	9.95	52 19
17.31	3	41.3	9.97	51 30
12.85	13	41.4	10.00	59 52
16.04	8	41.4	10.01	0 35
13.60	12	41.6	10.05	2 04
18.00	2	41.7	10.07	56 37
17.04	3	41.7	10.08	2 45
16.16	8	41.8	10.09	59 28
17.82	3	42.0	10.14	1 20
18.20	1	42.0	10.15	3 32
14.68	9	42.2	10.20	55 14
16.74	5	42.3	10.22	54 50
16.99	3	42.3	10.23	2 55
17.39	3	42.4	10.25	57 14
16.87	3	42.4	10.25	0 39
17.65	3	42.5	10.28	1 49
15.42	9	42.5	10.28	3 39
12.93	12	42.5	10.28	53 40
15.94	8	42.7	10.32	3 02
16.54	5	42.7	10.33	3 55
16.45	5	42.8	10.34	59 44
17.27	3	42.9	10.36	0 02
17.41	3	43.2	10.42	55 27
16.51	5	44.1	10.66	54 12
13.84	12	44.5	10.74	59 22
11.62	12	44.5	10.75	1 24
18.00	3	44.5	10.75	52 02
17.79	3	44.5	10.76	52 12
15.84	5	44.5	10.76	55 19
17.41	3	44.5	10.76	1 46
11.67	12	44.6	10.78	4 38
17.88	3	44.7	10.79	56 03
17.58	3	44.7	10.81	3 09
15.79	9	44.9	10.86	53 32
14.52	11	44.9	10.86	56 55

841—887				
Mag.		α 10^{m}	x	$y-60'$ y
		s	′	′ ″
13.81	12	45.0	10.88	58 13
16.50	5	45.0	10.88	0 46
17.43	3	45.3	10.95	54 09
17.51	3	45.3	10.95	2 00
17.69	3	45.5	11.01	3 09
17.82	3	45.7	11.05	3 39
17.79	3	45.8	11.06	2 05
17.65	3	45.8	11.07	0 37
17.65	3	46.0	11.10	59 42
17.80	3	46.1	11.13	2 13
17.46	3	46.2	11.14	5 00
17.87	3	46.3	11.18	57 43
16.84	3	46.4	11.20	58 37
18.20	1	46.4	11.21	0 16
18.14	1	46.6	11.24	0 09
17.84	3	46.8	11.31	0 31
17.62	3	47.0	11.36	0 44
17.97	3	47.1	11.38	51 30
17.66	3	47.1	11.38	56 20
18.14	1	47.4	11.45	0 18
15.60	9	47.4	11.45	2 08
16.12	8	47.4	11.46	4 51
17.83	3	47.5	11.48	50 47
18.14	1	47.7	11.53	1 47
16.13	8	47.8	11.54	54 16
14.41	12	47.8	11.54	57 37
17.94	3	47.8	11.54	57 51
17.44	3	47.8	11.56	59 09
16.01	8	47.8	11.56	3 17
16.16	6	47.9	11.57	4 35
10.77w	8	48.0	11.59	55 15
15.41	9	48.1	11.63	56 02
16.00	5	48.2	11.64	59 23
17.11	3	48.4	11.69	4 33
17.40	3	48.5	11.72	4 44
14.01	13	48.6	11.75	4 13
17.67	3	48.7	11.76	1 38
16.46	5	48.7	11.77	56 17
14.77	10	48.8	11.79	0 20
16.68	3	48.9	11.80	55 19
16.50	5	49.0	11.82	3 06
16.03	8	49.0	11.83	1 07
17.49	3	49.0	11.83	57 56
17.05	3	49.2	11.87	56 37
17.62	3	49.4	11.93	3 48
17.82	3	49.7	11.99	59 21
17.87	3	49.7	11.99	55 51

25 prec. + $85^{s}7$, + 0′ 23″

1s—60s				
Mag.		α 9^m	x	y−60′ / y
		s	′	′
16.58	2	35	94.0	56.8
17.48	2	35	94.0	57.6
17.33	2	36	94.2	54.8
15.06	8	36	94.2	55.8
17.80	2	36	94.2	56.0
17.64	2	36	94.3	54.5
17.21	2	36	94.3	56.5
16.27	4	36	94.3	57.6
17.14	2	36	94.3	58.4
14.34	10	36	94.3	59.4
17.56	2	37	94.4	57.2
17.04	2	37	94.4	59.1
16.91	2	37	94.5	56.6
16.32	4	37	94.5	58.4
14.54	9	37	94.6	53.7
17.74	2	38	94.6	55.4
17.77	2	37	94.6	56.7
15.93	7	37	94.6	58.2
16.17	6	37	94.6	59.0
15.38	7	38	94.8	59.9
16.86	2	38	94.8	1.6
15.41	7	38	94.8	2.0
16.19	6	39	94.9	53.6
17.22	2	39	94.9	57.4
17.08	2	39	94.9	57.7
17.82	2	39	94.9	59.4
16.99	2	39	94.9	0.2
17.66	2	39	95.0	54.6
16.98	2	39	95.0	54.9
16.13	7	39	95.0	59.0
15.74	7	39	95.0	1.8
15.97	6	39	95.0	2.2
17.59	2	40	95.1	54.0
15.38	7	40	95.1	59.9
15.85	7	40	95.1	2.6
17.70	2	40	95.2	52.6
17.38	2	40	95.2	53.2
15.90	7	40	95.2	0.0
17.04	2	41	95.3	1.2
17.03	2	41	95.3	2.2
15.12	7	41	95.3	2.6
16.42	4	41	95.4	56.1
17.42	2	41	95.4	58.6
16.05	7	41	95.4	1.3
15.67	6	41	95.4	2.0
15.39	6	41	95.4	2.8
16.70	2	41	95.5	57.2
16.92	2	42	95.6	51.9
17.03	2	42	95.6	53.0
17.70	2	42	95.6	53.8
17.50	2	42	95.6	59.2
16.10	6	42	95.6	0.1
17.82	2	42	95.7	52.4
17.16	2	42	95.7	57.0
17.86	2	42	95.7	3.0
16.90	2	42	95.8	53.0
17.74	2	43	95.8	56.8
17.66	2	43	95.8	57.4
16.03	7	42	95.8	0.4
16.46	4	43	95.8	2.8

61s—120s				
Mag.		α 9^m	x	y−60′ / y
		s	′	′
17.52	2	43	95.9	58.2
17.56	2	43	95.9	58.8
17.88	2	43	95.9	59.9
16.58	2	43	96.0	56.4
16.53	4	43	96.0	58.8
14.55	10	43	96.0	1.4
16.05	7	44	96.1	3.6
16.03	7	44	96.2	51.7
14.41	10	44	96.2	52.0
16.48	2	44	96.2	53.9
15.36	7	44	96.2	54.6
16.76	2	44	96.2	58.7
17.25	2	44	96.2	59.2
16.98	2	44	96.2	1.8
12.09	12	44	96.2	2.0
16.84	2	45	96.3	52.0
16.46	4	45	96.3	52.4
15.10	8	45	96.3	54.4
17.85	2	45	96.3	0.3
14.78	10	45	96.3	1.6
14.47	9	45	96.4	54.2
12.82	10	45	96.4	54.4
17.27	2	45	96.4	59.0
16.94	2	45	96.4	3.3
15.18	7	45	96.4	4.0
17.56	2	45	96.4	4.2
17.47	2	46	96.6	50.2
16.31	4	46	96.6	52.0
16.19	3	46	96.6	52.1
15.67	7	46	96.6	55.5
17.00	2	46	96.6	59.6
17.30	2	46	96.6	0.5
16.76	2	46	96.6	2.2
16.13	7	46	96.7	4.3
15.04	7	47	96.8	56.3
16.07	6	47	96.8	57.4
17.64	2	47	96.8	2.0
17.44	2	47	96.8	3.6
16.02	7	47	96.8	4.8
16.40	4	47	96.8	4.9
12.22	11	47	96.9	55.2
17.58	2	47	96.9	57.4
11.46	9	47	96.9	1.0
16.12	6	47	97.0	51.6
16.38	4	48	97.1	50.0
17.12	2	49	97.3	49.6
17.38	2	49	97.4	49.7
16.47	4	50	97.6	5.2
16.46	4	52	98.2	48.8
9.92	7	53	98.3	5.3
16.30	4	55	98.8	5.8
17.88	2	55	98.8	6.2
16.47	4	56	99.0	49.1
17.58	2	56	99.0	5.4
17.44	2	56	99.0	6.3
16.32	5	56	99.1	5.2
17.11	2	57	99.2	5.1
16.34	4	57	99.2	6.6
17.10	2	58	99.4	6.8
17.60	2	58	99.6	48.8

121s—180s				
Mag.		α 9^m	x	y−60′ / y
		s	′	′
15.57	7	59	99.8	49.7
14.52	9	59	99.8	5.8
17.60	2	59	99.8	6.9
17.78	2	60	99.9	5.2
16.02	7	60	0.0	48.1
17.76	2	60	0.0	5.6
17.68	2	60	0.0	5.7
15.05	8	60	0.0	5.9
17.70	2	60	0.1	5.7
17.58	2	60	0.1	6.7
17.73	2	61	0.2	49.4
16.28	4	61	0.2	6.1
17.06	2	61	0.3	48.4
15.52	7	61	0.3	6.0
16.13	6	61	0.3	6.4
16.46	4	61	0.3	7.2
16.18	5	62	0.6	47.6
17.66	2	62	0.6	49.0
15.81	7	62	0.6	5.4
16.10	7	63	0.7	5.5
17.76	2	63	0.8	49.2
17.26	2	63	0.8	6.7
17.02	2	64	0.9	6.6
17.19	2	64	0.9	6.8
16.40	5	64	1.0	47.8
17.28	2	64	1.0	6.0
16.18	5	65	1.2	49.3
17.50	2	65	1.2	6.8
16.49	4	65	1.3	5.4
17.03	2	65	1.3	6.1
17.83	2	66	1.4	47.7
16.56	3	66	1.4	49.8
12.94	11	66	1.4	5.0
16.48	4	66	1.4	6.4
17.12	2	66	1.6	47.0
15.96	6	67	1.6	48.3
17.68	2	67	1.7	5.8
16.43	4	67	1.7	6.3
17.44	2	67	1.8	48.2
16.88	2	67	1.8	49.3
15.65	7	67	1.8	49.8
16.23	4	68	1.9	5.3
16.91	2	69	2.1	48.3
15.80	7	69	2.1	7.4
17.03	2	69	2.1	7.8
15.79	7	69	2.2	48.3
15.25	7	70	2.3	48.5
16.28	5	70	2.4	48.1
16.46	4	70	2.4	5.4
16.17	5	71	2.6	46.8
13.49	9	71	2.6	49.1
17.08	2	71	2.6	7.2
17.62	2	71	2.7	48.4
15.67	6	72	2.8	48.6
12.64	12	72	2.8	7.7
17.70	2	72	2.9	7.7
17.52	2	73	3.0	49.9
17.80	2	73	3.0	7.9
17.58	2	73	3.1	49.4
17.58	2	73	3.1	5.1

181s—240s				
Mag.		α 10^m	x	y−60′ / y
		s	′	′
16.08	7	13	3.2	48.3
15.50	6	13	3.2	48.6
17.38	2	13	3.2	6.4
16.98	2	14	3.4	5.7
17.61	2	14	3.4	6.2
15.10	8	14	3.4	6.6
14.73	10	14	3.4	7.0
16.15	7	14	3.5	5.5
17.02	2	15	3.6	47.4
13.24	9	15	3.6	47.6
12.81	12	15	3.6	49.0
17.48	2	15	3.6	49.4
17.92	2	15	3.6	6.1
16.73	2	15	3.6	6.3
15.07	8	15	3.7	6.8
16.90	2	16	3.8	47.0
14.76	9	16	3.9	49.8
17.20	2	17	4.1	7.0
17.02	2	17	4.2	48.6
17.82	2	17	4.2	6.6
17.44	2	18	4.3	47.9
15.75	7	18	4.3	6.2
16.55	4	18	4.4	50.0
14.46	8	19	4.6	46.8
15.75	6	19	4.6	46.9
15.46	6	19	4.6	47.2
16.23	4	19	4.6	5.3
14.79	9	19	4.6	5.9
16.78	2	19	4.7	46.6
16.23	5	19	4.7	46.8
17.62	2	19	4.7	5.6
15.24	7	20	5.0	47.0
16.23	6	21	5.0	5.6
17.32	2	22	5.2	48.9
16.96	2	22	5.2	49.0
16.38	4	22	5.2	5.2
13.54	11	22	5.4	5.2
13.94	10	22	5.4	6.3
15.48	7	23	5.4	8.0
15.87	7	23	5.6	49.2
14.60	9	24	5.8	47.1
15.64	7	24	5.8	48.7
15.10	7	24	5.8	48.9
16.36	4	24	5.9	5.8
17.16	2	25	6.0	46.8
16.35	4	25	6.0	48.2
17.82	2	25	6.0	48.8
16.64	4	25	6.0	5.3
16.23	2	25	6.1	48.4
17.93	2	25	6.2	5.4
17.56	2	25	6.2	6.8
17.69	2	26	6.3	49.4
13.78	10	26	6.3	7.6
16.10	6	27	6.5	49.2
14.83	8	28	6.7	47.3
17.77	2	28	6.7	49.7
17.79	2	28	6.8	49.8
13.22	10	29	6.9	7.8
15.66	7	29	7.0	47.0
17.22	2	29	7.0	48.2

241s—300s				
Mag.		α 10^m	x	y−60′ / y
		s	′	′
17.96	2	29	7.0	6.1
17.30	2	29	7.1	5.8
15.20	8	29	7.1	7.4
14.49	10	30	7.2	48.8
17.70	2	30	7.2	49.9
16.37	4	30	7.2	6.0
17.48	2	30	7.2	6.1
14.20	10	30	7.3	49.1
15.44	7	30	7.4	47.9
16.05	7	31	7.4	6.4
16.46	4	31	7.4	6.6
14.38	9	31	7.6	48.5
16.55	4	31	7.6	49.6
17.00	2	32	7.8	49.8
17.02	2	33	7.9	48.3
17.78	2	33	8.0	5.4
16.94	2	33	8.0	6.2
16.90	2	34	8.1	6.4
17.58	2	34	8.1	7.0
16.17	5	34	8.2	47.2
13.58	11	34	8.2	7.2
17.06	2	34	8.3	5.2
17.08	2	34	8.3	5.4
17.56	2	36	8.6	47.5
17.62	2	36	8.6	47.7
17.02	2	36	8.6	49.6
16.38	4	36	8.6	5.6
17.52	2	38	9.2	48.1
17.77	2	38	9.2	48.8
16.78	2	38	9.2	5.9
15.78	7	39	9.4	48.0
17.66	2	40	9.6	49.5
13.99	11	40	9.6	5.7
16.06	7	40	9.6	6.0
15.78	7	41	9.8	49.5
17.60	2	43	10.2	6.3
16.92	2	45	10.8	49.6
17.50	2	45	10.9	6.0
17.52	2	45	11.0	5.6
16.51	4	46	11.2	5.8
16.94	2	49	11.8	49.6
14.88	8	49	11.8	49.8
17.10	2	49	11.8	49.9
17.44	2	50	12.0	3.4
15.29	7	50	12.1	52.7
15.67	7	51	12.2	52.8
17.60	2	51	12.3	51.6
13.07	10	51	12.3	53.2
17.61	2	51	12.4	50.8
17.37	2	51	12.4	51.1
12.47	11	51	12.4	53.1
13.90	10	51	12.4	56.0
17.66	2	51	12.4	2.6
16.28	5	52	12.6	51.6
17.26	2	52	12.6	58.1
15.82	7	52	12.6	1.0
16.19	7	52	12.6	1.4
12.30	8	52	12.6	1.6
17.51	2	52	12.6	2.0
16.07	6	52	12.6	3.0

25 prec. + 85^s.7, + 0′ 22″

18^{h} Area 134. Supplementary Stars $-14°, -15°$

301s—320s				321s—340s				341s—360s				361s—364s			
Mag.	α 10^{m}	x	$y-60'$ / y	Mag.	α 10^{m}	x	$y-60'$ / y	Mag.	α 10^{m}	x	$y-60'$ / y	Mag.	α 11^{m}	x	$y-60'$
	s	′	′		s	′	′		s	′	′		s	′	′
17.36 2	53	12.7	59.0	14.93 9	54	13.1	2.7	16.44 4	58	14.1	54.0	17.02 2	2	15.0	58.0
16.82 2	53	12.7	2.0	15.91 7	54	13.2	51.2	14.90 9	59	14.2	54.1	15.88 7	2	15.0	59.4
17.78 2	53	12.7	2.1	16.94 2	54	13.2	51.8	15.72 7	59	14.2	0.2	15.05 8	3	15.2	56.8
13.27 11	53	12.7	2.6	17.06 2	55	13.2	54.6	17.28 2	59	14.2	1.6	15.08 8	3	15.2	58.6
17.65 2	53	12.8	50.4	15.22 7	55	13.3	55.2	12.85 13	59	14.3	1.4				
17.66 2	53	12.8	50.6	15.82 7	55	13.4	56.8	17.00 2	60	14.4	54.9				
17.54 2	53	12.8	52.2	17.07 2	55	13.4	59.3	15.76 7	59	14.4	55.2				
15.93 7	53	12.8	54.1	17.62 2	55	13.4	2.0	15.58 7	60	14.4	56.1				
16.50 4	53	12.8	3.6	15.71 7	56	13.5	2.4	15.78 7	59	14.4	57.0				
17.71 2	53	12.9	56.4	17.68 2	56	13.6	55.8	17.58 2	60	14.5	59.2				
17.71 2	53	12.9	56.7	15.07 9	56	13.6	58.8	17.54 2	60	14.6	58.8				
16.99 2	53	12.9	0.4	16.85 2	56	13.6	59.4	14.07 9	61	14.7	54.6				
15.93 5	53	12.9	1.8	15.22 8	56	13.6	0.0	16.18 3	61	14.8	54.6				
16.96 2	53	12.9	3.2	16.21 7	57	13.7	57.6	16.22 7	61	14.8	56.0				
16.33 5	53	12.9	4.0	17.53 2	57	13.8	52.8	17.65 2	61	14.8	56.1				
14.77 9	54	13.0	58.1	16.24 5	57	13.8	53.2	15.36 7	61	14.8	0.8				
15.89 7	54	13.0	2.4	17.07 2	57	13.8	54.6	16.08 7	62	14.9	55.8				
16.06 7	54	13.0	2.8	17.77 2	57	13.8	2.0	15.74 7	62	14.9	0.0				
15.60 7	54	13.0	3.0	14.81 9	57	13.8	2.2	14.85 9	62	15.0	55.4				
17.56 2	54	13.1	0.8	17.68 2	58	14.0	59.9	15.01 8	62	15.0	56.8				

25 prec. $+ 85\overset{s}{.}7, + 0' 23''$

19^{h} Area 135. Center for 1900: $19^{h}\ 13^{m} - 15°\ 0'\ (15' \times 15')$ $-14°, -15°$

1—30				31—60				61—90				91—120				121—150			
Mag.	α 12^{m}	x	$y-60'$ / y	Mag.	α 12^{m}	x	$y-60'$ / y	Mag.	α 12^{m}	x	$y-60'$ / y	Mag.	α 12^{m}	x	$y-60'$ / y	Mag.	α 12^{m}	x	$y-60'$ / y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.97 1	26.9	92.00	57 46	17.48 3	27.6	92.17	1 49	17.51 3	28.4	92.37	55 43	13.10 17	29.6	92.64	4 20	16.11 7	30.3	92.83	3 16
17.97 1	26.9	92.00	2 02	16.41 1	27.6	92.17	1 16	17.29* 1	28.4	92.38	56 38	17.53 3	29.6	92.64	54 44	17.48 3	30.3	92.83	4 46
16.06 8	26.9	92.00	59 54	17.46 2	27.6	92.17	54 11	17.91 1	28.4	92.38	53 12	17.60 3	29.6	92.66	55 49	16.14 7	30.3	92.83	52 36
17.45 3	26.9	92.01	55 16	17.01 3	27.6	92.18	55 31	17.56 1	28.5	92.39	56 35	17.91 1	29.6	92.66	54 57	17.50 3	30.4	92.84	54 42
16.28 7	27.0	92.02	55 49	16.65 4	27.8	92.22	3 57	17.46 2	28.5	92.40	53 53	17.54 3	29.7	92.67	53 50	17.56 3	30.4	92.85	52 02
17.42 2	27.0	92.02	55 57	16.85 3	27.8	92.23	55 55	17.40 3	28.7	92.44	4 11	17.07 3	29.7	92.68	58 32	17.79 1	30.4	92.85	55 20
17.58 2	27.0	92.03	1 14	17.97 1	27.9	92.25	3 48	15.68 9	28.7	92.45	59 25	17.04 3	29.7	92.68	59 13	17.91 1	30.4	92.86	55 02
17.97 1	27.1	92.05	1 32	17.35 3	27.9	92.25	59 44	17.54 2	28.7	92.46	1 04	17.53 3	29.8	92.69	4 45	17.10 3	30.4	92.86	4 15
17.97 1	27.1	92.05	56 25	15.34 9	27.9	92.26	56 36	17.85 1	28.8	92.47	50 15	18.03 1	29.8	92.70	59 33	17.51 3	30.4	92.86	0 38
17.97 1	27.1	92.06	56 57	17.91 1	27.9	92.26	51 00	16.35 5	28.9	92.49	56 57	17.63 3	29.8	92.71	2 29	16.21 7	30.5	92.87	0 02
16.79 1	27.1	92.06	50 22	17.79 1	28.0	92.27	50 15	17.50 2	28.9	92.49	56 17	17.73 1	29.9	92.72	1 15	17.10 2	30.5	92.87	51 21
17.50 3	27.2	92.07	53 12	17.97 1	28.0	92.27	58 45	17.22 1	28.9	92.51	50 39	18.03 1	29.9	92.73	59 48	17.41 3	30.5	92.87	52 56
17.13 3	27.2	92.08	59 01	15.80 9	28.0	92.27	55 14	17.31 3	29.0	92.52	2 28	18.03 1	29.9	92.73	58 43	17.53 3	30.6	92.89	53 11
16.60 3	27.3	92.09	59 59	17.79 1	28.0	92.27	4 22	16.64 3	29.0	92.53	53 59	17.51 2	30.0	92.74	59 59	17.97 1	30.6	92.89	53 17
17.43 1	27.3	92.09	50 15	17.97 1	28.0	92.28	56 55	17.01 1	29.0	92.53	55 51	17.23 3	30.0	92.74	58 28	17.85 1	30.6	92.91	57 31
17.50 3	27.3	92.10	4 13	17.91 1	28.1	92.29	56 58	17.56 1	29.1	92.54	0 43	17.42 2	30.0	92.74	58 46	17.29 2	30.6	92.91	59 27
17.79 1	27.3	92.10	4 24	17.55 3	28.1	92.29	1 50	17.44 3	29.1	92.55	53 26	17.22 3	30.0	92.74	51 05	17.16 3	30.6	92.91	57 57
17.79 1	27.3	92.11	54 01	17.85 1	28.1	92.30	50 53	17.54 3	29.1	92.55	54 08	17.91 1	30.0	92.76	54 20	17.59 3	30.6	92.91	0 45
16.96 3	27.3	92.11	59 22	17.55 2	28.1	92.30	52 57	15.99 7	29.2	92.56	57 30	16.18 7	30.0	92.76	57 41	17.51 2	30.7	92.93	1 38
14.71 10	27.3	92.11	59 57	17.39 3	28.1	92.31	55 33	17.79 1	29.2	92.56	2 26	15.27 6	30.0	92.76	0 56	17.56 1	30.8	92.94	56 07
17.38 3	27.3	92.11	51 40	17.29 1	28.1	92.31	55 13	17.91 1	29.2	92.57	52 32	17.97 1	30.0	92.76	4 36	17.65 3	30.8	92.94	54 59
15.03 10	27.4	92.12	56 17	17.56 1	28.1	92.31	0 53	17.50 1	29.2	92.57	51 42	17.79 1	30.0	92.76	3 38	17.10 3	30.8	92.95	51 36
17.56 1	27.4	92.13	57 21	17.43 3	28.2	92.33	3 56	17.85 1	29.2	92.57	54 52	17.85 1	30.0	92.76	1 11	14.49 10	30.8	92.95	55 48
16.98 3	27.4	92.13	3 51	15.73 9	28.3	92.34	54 07	17.65 3	29.3	92.59	2 17	17.34 3	30.1	92.77	1 51	16.17 7	30.8	92.95	57 17
17.56 1	27.5	92.14	50 02	17.04 3	28.3	92.35	55 06	17.29 3	29.4	92.61	58 29	17.44 3	30.1	92.78	2 11	17.31 3	30.8	92.95	58 28
17.85 1	27.5	92.14	51 22	17.23 3	28.3	92.36	55 18	17.39 3	29.4	92.61	58 19	12.63w 13	30.2	92.80	4 27	17.03 3	30.8	92.95	58 49
16.85 3	27.5	92.15	54 40	17.43 3	28.3	92.36	53 30	17.18 3	29.4	92.61	51 05	17.46 3	30.2	92.80	52 24	17.97 1	30.8	92.96	3 04
17.58 2	27.5	92.15	56 36	17.20 3	28.4	92.37	52 13	17.97 1	29.5	92.62	57 22	17.43 3	30.2	92.80	51 19	17.56 1	30.9	92.97	2 09
14.47* 2	27.5	92.16	1 14	16.42 3	28.4	92.37	52 47	17.51 2	29.5	92.63	0 38	17.62: 2	30.2	92.80	58 52	17.07 3	30.9	92.97	55 44
16.77 2	27.5	92.16	1 25	17.47 3	28.4	92.37	58 34	15.04 10	29.6	92.64	1 37	18.03 1	30.2	92.81	59 25	17.85 1	30.9	92.97	51 03

25 prec. $+ 85\overset{s}{.}2, + 2' 36''$

151—210				
Mag.		α 12^m	x	$y-60'$ y
		s	′	′ ″
17.22	1	30.9	92.97	50 16
16.39	5	30.9	92.98	52 13
15.99	7	31.2	93.04	3 48
17.49	3	31.2	93.04	55 32
18.03	1	31.2	93.05	57 10
17.49	3	31.2	93.05	2 12
17.56	2	31.2	93.06	52 07
17.55	3	31.2	93.06	58 34
17.11	3	31.3	93.07	59 14
15.27	9	31.3	93.07	56 27
14.91	10	31.3	93.07	53 20
17.62	1	31.3	93.08	52 22
17.36	1	31.3	93.08	53 23
17.50	2	31.3	93.08	55 31
15.74	9	31.4	93.11	52 40
17.91	1	31.6	93.14	50 43
17.36	1	31.6	93.14	59 11
17.04	3	31.6	93.15	58 31
17.56	1	31.6	93.15	56 28
17.39	3	31.6	93.16	59 21
17.55	3	31.6	93.16	56 39
17.56	1	31.6	93.16	50 02
17.23	3	31.6	93.16	1 11
16.10	7	31.6	93.16	2 01
17.46	2	31.7	93.17	58 54
17.56	1	31.7	93.18	54 03
15.70	9	31.7	93.18	50 40
17.56	2	31.8	93.20	54 43
17.19	3	31.8	93.20	51 43
17.91	1	31.8	93.20	51 25
17.35	3	31.8	93.20	0 03
17.51	3	31.8	93.21	2 43
17.01	3	31.8	93.21	58 14
17.09	3	31.8	93.21	55 47
17.45	3	31.9	93.23	4 09
16.72	2	31.9	93.23	0 59
17.41	3	32.0	93.24	0 26
17.07	3	32.1	93.26	52 58
17.33	3	32.1	93.27	54 52
17.54	2	32.1	93.27	55 17
17.85	1	32.2	93.28	0 03
16.46	5	32.2	93.29	57 04
17.55	3	32.3	93.30	0 55
17.56	1	32.3	93.31	53 28
17.56	1	32.3	93.31	56 05
17.85	1	32.4	93.32	56 46
17.47	2	32.4	93.33	2 28
17.97	1	32.5	93.34	54 31
17.56	2	32.5	93.35	1 07
17.91	1	32.5	93.35	50 17
17.62	1	32.5	93.35	54 52
18.03	1	32.5	93.35	58 30
13.72	14	32.5	93.36	1 17
17.36	1	32.5	93.36	50 22
17.49	3	32.5	93.36	51 31
18.03	1	32.6	93.37	56 23
18.03	1	32.6	93.38	57 16
17.85	1	32.7	93.39	57 03
17.49	3	32.7	93.39	52 47
18.03	1	32.7	93.39	0 20

211—270				
Mag.		α 12^m	x	$y-60'$ y
		s	′	′ ″
17.09	3	32.7	93.40	54 55
17.55	3	32.8	93.43	53 36
17.85	1	32.9	93.44	55 37
17.46	2	32.9	93.44	1 24
17.57	2	32.9	93.45	59 40
16.14	7	32.9	93.46	59 54
17.97	1	32.9	93.46	4 09
17.26	3	33.0	93.47	50 35
17.57	2	33.1	93.49	57 15
17.56	3	33.1	93.50	57 21
17.51	2	33.1	93.50	54 54
17.40	3	33.1	93.50	53 14
18.03	1	33.2	93.53	0 56
18.03	1	33.2	93.53	58 54
17.57	2	33.2	93.53	55 08
16.63	3	33.2	93.53	59 30
16.65	3	33.3	93.54	56 41
17.91	1	33.3	93.54	51 17
17.35	3	33.3	93.54	2 27
17.73	1	33.3	93.55	56 25
14.49	12	33.3	93.56	57 58
17.54	2	33.3	93.56	57 13
18.03	1	33.3	93.56	0 49
17.47	3	33.3	93.56	2 57
17.36	3	33.3	93.56	53 11
17.97	1	33.4	93.57	54 42
16.92	3	33.4	93.58	4 37
17.54	2	33.5	93.60	3 02
17.91	1	33.8	93.67	51 02
17.36	2	33.8	93.67	56 38
16.35	7	33.8	93.68	56 30
17.97	1	33.8	93.68	57 07
17.54	2	33.8	93.68	59 00
16.29	7	33.9	93.71	59 57
17.49	3	34.0	93.72	54 41
17.51	3	34.1	93.74	2 20
17.42	3	34.1	93.75	2 49
17.97	1	34.1	93.75	4 41
13.46	14	34.1	93.75	54 14
18.03	1	34.1	93.75	54 35
18.03	1	34.1	93.76	2 24
17.22	3	34.1	93.76	4 33
17.85	1	34.2	93.77	50 52
17.60	2	34.3	93.79	59 06
17.56	1	34.3	93.80	56 10
17.47	3	34.3	93.81	59 49
16.81	3	34.4	93.82	50 09
17.56	1	34.4	93.83	55 44
15.97	8	34.4	93.83	55 26
17.50	1	34.5	93.84	1 16
17.40	2	34.5	93.86	2 21
17.43	1	34.6	93.87	59 28
16.70	3	34.6	93.87	56 36
17.40	3	34.6	93.87	3 21
17.61	3	34.6	93.87	2 33
17.24	2	34.6	93.88	2 25
17.52	3	34.7	93.89	1 38
17.36	1	34.7	93.89	54 59
17.23	3	34.7	93.91	54 44
16.65	3	34.8	93.92	59 32

271—330				
Mag.		α 12^m	x	$y-60'$ y
		s	′	′ ″
17.54	3	34.8	93.93	57 00
18.03	1	34.8	93.93	2 17
17.51	2	34.9	93.94	3 33
17.48	2	34.9	93.94	57 31
17.50	1	34.9	93.95	56 34
17.46	2	34.9	93.95	56 42
17.03	3	34.9	93.95	4 09
17.97	1	35.0	93.96	58 51
17.97	1	35.0	93.96	52 45
17.79	1	35.0	93.97	58 46
18.03	1	35.0	93.97	58 27
17.39	3	35.0	93.97	51 23
17.85	1	35.1	93.98	50 31
17.97	1	35.1	93.98	3 44
17.85	1	35.1	93.98	1 59
17.60	2	35.2	94.00	57 20
17.62	1	35.2	94.01	57 46
17.60	2	35.3	94.02	58 11
17.91	1	35.4	94.05	50 46
17.91	1	35.4	94.05	50 53
17.53	3	35.4	94.05	1 41
18.03	1	35.4	94.06	59 36
17.60	2	35.5	94.07	58 49
17.97	1	35.5	94.07	3 32
17.97	1	35.5	94.07	52 42
17.50	1	35.5	94.08	56 30
14.87	9	35.5	94.08	55 43
17.97	1	35.5	94.08	55 28
17.55	3	35.6	94.10	54 28
17.51	3	35.6	94.10	4 44
17.91	1	35.6	94.11	53 42
17.56	1	35.6	94.11	54 13
14.39	12	35.6	94.11	51 55
17.97	1	35.6	94.11	56 59
18.03	1	35.6	94.11	1 43
17.61	3	35.7	94.13	53 23
17.12	3	35.7	94.13	57 05
16.28	7	35.8	94.14	2 25
16.84	3	35.8	94.14	3 34
17.97	1	35.8	94.15	2 37
15.81	9	35.8	94.15	55 14
16.86	3	35.8	94.16	4 48
17.49	3	35.8	94.16	52 40
18.03	1	35.8	94.17	59 24
18.03	1	35.9	94.17	59 38
16.19	7	36.0	94.19	0 34
17.44	3	36.0	94.20	2 52
16.46	5	36.0	94.20	57 14
17.59	2	36.0	94.21	57 42
18.03	1	36.1	94.23	1 45
17.56	2	36.2	94.24	0 45
17.08	3	36.2	94.25	1 01
17.29	3	36.2	94.25	57 31
11.82w	14	36.2	94.26	56 08
14.17	11	36.2	94.26	4 07
16.37	5	36.2	94.26	53 07
17.39	3	36.2	94.26	53 52
17.79	1	36.3	94.27	58 55
16.31	5	36.4	94.29	50 40
17.85	1	36.4	94.30	59 11

331—390				
Mag.		α 12^m	x	$y-60'$ y
		s	′	′ ″
16.52	3	36.4	94.30	59 29
15.64	9	36.4	94.30	3 38
17.97	1	36.4	94.31	4 54
17.97	1	36.4	94.31	52 31
17.97	1	36.5	94.32	53 38
16.33	7	36.5	94.32	57 23
16.05	7	36.5	94.32	55 02
17.34	3	36.6	94.34	56 04
17.13	3	36.6	94.34	55 40
18.03	1	36.6	94.34	56 20
16.29	5	36.6	94.35	3 01
13.88	14	36.6	94.36	2 46
16.84	3	36.6	94.36	2 40
17.79	1	36.6	94.36	55 34
14.96	9	36.6	94.36	58 05
17.40	3	36.6	94.36	53 54
16.13	7	36.6	94.36	52 36
16.73	3	36.6	94.36	51 01
17.97	1	36.7	94.37	52 13
17.43	3	36.7	94.37	51 43
17.36	2	36.7	94.37	56 44
17.56	2	36.7	94.37	57 47
16.61	3	36.7	94.38	50 42
17.46	3	36.7	94.38	50 39
17.59	2	36.7	94.38	51 43
17.91	1	36.8	94.39	50 32
17.97	1	36.9	94.42	1 39
16.01	7	37.0	94.44	0 03
17.79	1	37.0	94.44	57 18
17.60	2	37.0	94.45	57 45
16.37	5	37.0	94.45	3 37
16.63	3	37.0	94.46	59 42
17.60	2	37.1	94.47	59 28
17.91	1	37.1	94.47	50 45
14.83	10	37.1	94.47	51 48
18.09	1	37.1	94.48	57 35
17.75	3	37.2	94.49	4 38
17.97	1	37.2	94.50	2 05
17.56	2	37.2	94.50	59 16
16.23	7	37.2	94.50	57 24
17.91	1	37.2	94.50	54 49
14.75	10	37.2	94.51	3 09
18.03	1	37.3	94.52	0 51
16.86*	1	37.3	94.53	58 17
18.03	1	37.3	94.53	58 36
16.86	1	37.3	94.53	58 18
17.57	2	37.4	94.54	0 28
16.79	3	37.4	94.55	51 45
18.09	1	37.4	94.56	59 45
17.48	2	37.4	94.56	2 15
17.54	2	37.4	94.56	1 55
16.26	7	37.4	94.56	2 48
17.18	3	37.5	94.57	1 50
16.90	3	37.5	94.57	58 00
17.77	2	37.5	94.58	59 58
17.64	2	37.6	94.60	0 51
18.03	1	37.7	94.62	2 00
15.97	8	37.7	94.62	50 16
16.64*	1	37.7	94.62	54 49
14.59	11	37.8	94.64	52 34

391—450				
Mag.		α 12^m	x	$y-60'$ y
		s	′	′ ″
17.09	1	37.8	94.65	54 51
17.16	3	37.8	94.65	58 24
17.64	2	37.8	94.65	4 47
17.22	3	37.8	94.65	50 40
17.12	3	37.9	94.66	51 39
14.53	11	37.9	94.66	52 49
17.42	3	37.9	94.66	0 02
17.53	2	37.9	94.67	59 02
17.91	1	37.9	94.67	58 02
15.82	8	37.9	94.67	52 01
17.60	2	38.1	94.68	2 09
15.43	9	38.1	94.69	55 38
17.23	3	38.1	94.70	1 33
17.79	1	38.1	94.71	55 02
17.91	1	38.2	94.72	54 54
17.04	3	38.2	94.74	56 38
15.84	8	38.3	94.74	1 28
17.97	1	38.3	94.75	52 54
14.41	12	38.3	94.75	50 27
17.29	3	38.3	94.76	54 32
17.50	1	38.3	94.76	3 03
18.03	1	38.4	94.77	2 20
17.60	3	38.4	94.78	57 33
17.44	3	38.4	94.78	51 38
17.91	1	38.5	94.79	50 43
17.52	3	38.5	94.79	51 44
17.58	2	38.5	94.79	58 29
17.12	3	38.5	94.80	58 11
17.58	3	38.5	94.81	54 38
17.85	1	38.5	94.81	2 49
17.35	3	38.6	94.83	3 54
17.54	2	38.7	94.84	2 31
14.21	12	38.7	94.84	0 07
15.97	7	38.7	94.84	55 44
18.03	1	38.7	94.84	55 21
18.03	1	38.7	94.84	53 12
18.03	1	38.7	94.86	54 23
16.72	2	38.7	94.86	2 45
17.18	2	38.8	94.87	51 23
17.91	1	38.8	94.87	57 25
15.86	9	38.8	94.88	2 11
17.20	3	38.9	94.90	59 20
16.91	3	38.9	94.91	3 59
17.33	3	38.9	94.91	50 51
18.09	1	39.0	94.93	57 00
17.56	2	39.1	94.95	59 46
17.49	3	39.1	94.95	3 40
17.48	3	39.1	94.96	51 01
17.46	2	39.1	94.96	50 36
17.79	1	39.2	94.97	52 47
17.56	2	39.2	94.97	54 46
17.62	1	39.2	94.98	58 21
17.68	1	39.4	95.02	50 54
17.10	3	39.4	95.03	55 06
17.52	2	39.5	95.04	56 44
18.03	1	39.5	95.05	3 35
16.34	5	39.5	95.05	4 49
17.60	2	39.5	95.06	59 11
17.44	3	39.5	95.06	51 40
17.14	3	39.6	95.08	54 23

25 prec. + $85^{s}.2$, + 2′ 36″

451—510					511—570					571—630					631—690					691—750				
Mag.		α 12^m	x	$y-60'$ / y	Mag.		α 12^m	x	$y-60'$ / y	Mag.		α 12^m	x	$y-60'$ / y	Mag.		α 12^m	x	$y-60'$ / y	Mag.		α 12^m	x	$y-60'$ / y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
16.25	5	39.6	95.08	50 01	17.44	3	41.2	95.45	3 30	18.09	1	43.0	95.90	2 11	17.54	2	44.9	96.35	52 32	17.50	2	46.5	96.75	53 26
17.79	1	39.6	95.08	55 25	17.58	2	41.2	95.46	52 21	18.09	1	43.0	95.91	2 55	16.06	7	44.9	96.35	2 31	17.53	3	46.6	96.76	52 52
18.03	1	39.7	95.09	2 41	17.62	1	41.3	95.47	50 34	17.97	1	43.0	95.91	51 22	18.03	1	44.9	96.36	4 45	17.78	2	46.6	96.76	1 04
16.02	8	39.7	95.09	50 12	17.62	2	41.3	95.47	57 39	18.15	1	43.0	95.91	59 13	17.48	2	44.9	96.36	58 54	17.62	2	46.6	96.76	2 09
15.62	9	39.7	95.10	50 28	18.09	1	41.3	95.47	0 41	16.56	3	43.1	95.93	53 49	17.51	2	45.0	96.37	0 51	17.69	2	46.6	96.76	2 55
17.85	1	39.7	95.10	55 27	16.93	3	41.3	95.48	1 01	18.03	1	43.2	95.94	54 13	17.50	2	45.0	96.37	1 36	17.85	1	46.6	96.77	2 25
18.15	1	39.7	95.11	2 20	18.09	1	41.3	95.48	55 40	16.51	5	43.2	95.94	0 37	18.03	1	45.0	96.37	4 45	16.44	5	46.6	96.77	55 10
16.64	3	39.7	95.11	3 07	16.17	7	41.4	95.50	55 27	17.65	2	43.2	95.94	1 04	16.87	3	45.0	96.37	59 43	17.44	3	46.6	96.77	51 11
16.25	7	39.7	95.11	54 39	18.03	1	41.4	95.51	55 03	17.76	2	43.2	95.96	0 00	15.62	8	45.0	96.37	55 52	17.64	2	46.8	96.80	3 00
18.09	1	39.8	95.12	59 44	17.97	1	41.5	95.52	3 56	16.77	3	43.3	95.97	54 43	17.60	3	45.0	96.37	55 59	17.97	1	46.9	96.83	50 35
12.46	11	39.9	95.15	52 55	18.03	1	41.5	95.52	4 32	15.87	8	43.3	95.98	51 31	17.32	3	45.1	96.39	50 45	17.06	3	46.9	96.83	0 17
17.91	1	39.9	95.15	55 59	16.22	7	41.5	95.53	2 25	18.15	1	43.3	95.98	59 29	17.44	3	45.1	96.41	50 37	17.79	1	47.0	96.84	2 37
17.23	3	39.9	95.16	56 09	16.73	3	41.5	95.53	51 48	15.51	9	43.3	95.98	59 42	17.84	2	45.1	96.41	59 36	17.50	2	47.0	96.84	0 36
17.85	1	40.0	95.17	57 59	17.30	3	41.6	95.54	56 23	18.03	1	43.4	95.99	3 10	17.18	3	45.2	96.42	52 23	15.09	9	47.0	96.85	58 38
17.48	3	40.0	95.17	4 16	16.68	3	41.6	95.55	59 37	16.26	6	43.4	96.01	55 27	17.51	3	45.2	96.42	52 39	16.53	5	47.0	96.85	58 51
17.79	1	40.0	95.17	52 47	14.96	10	41.6	95.56	56 27	17.72	2	43.5	96.02	4 18	16.70	3	45.3	96.44	57 25	17.60	2	47.0	96.85	54 30
17.80	2	40.0	95.17	54 11	18.03	1	41.6	95.56	4 44	17.28	2	43.5	96.03	2 24	16.17	7	45.3	96.44	59 47	17.56	3	47.0	96.85	50 56
17.50	1	40.0	95.17	54 32	17.46	3	41.6	95.56	58 22	17.97	1	43.5	96.03	58 26	18.03	1	45.3	96.44	52 59	17.47	2	47.0	96.86	54 54
17.68	1	40.0	95.18	50 42	17.15	3	41.7	95.57	58 22	18.09	1	43.5	96.03	54 41	17.73	1	45.3	96.45	54 16	17.79	1	47.0	96.86	59 51
17.97	1	40.0	95.18	2 12	17.36	1	41.7	95.57	51 29	17.85	1	43.6	96.05	1 21	16.26	5	45.3	96.45	51 34	18.09	1	47.1	96.87	55 26
17.97	1	40.1	95.21	3 50	17.62	2	41.7	95.58	51 34	17.62	2	43.7	96.06	0 36	18.09	1	45.3	96.45	55 54	17.67	2	47.1	96.87	55 44
17.40	2	40.2	95.23	4 30	17.24	3	41.8	95.59	57 46	18.03	1	43.7	96.06	2 44	18.09	1	45.3	96.46	56 57	17.97	1	47.1	96.87	51 30
18.03	1	40.3	95.24	4 20	17.56	1	41.9	95.62	55 42	17.97	1	43.7	96.06	51 26	18.15	1	45.3	96.46	0 04	17.28	3	47.1	96.87	54 16
18.03	1	40.3	95.25	54 54	17.58	2	42.0	95.64	56 33	17.58	2	43.7	96.07	58 40	17.59	2	45.3	96.46	54 42	16.10	7	47.1	96.88	54 00
17.97	1	40.3	95.25	51 04	17.91	1	42.0	95.64	58 26	17.68	2	43.8	96.08	55 14	15.87	8	45.4	96.47	54 35	16.77	3	47.1	96.88	51 25
17.40	2	40.3	95.26	3 07	18.03	1	42.0	95.64	53 27	17.53	3	43.8	96.08	53 09	17.78	2	45.4	96.47	57 21	16.23	8	47.2	96.90	57 43
16.95	3	40.3	95.26	4 59	14.74	9	42.0	95.65	0 24	17.44	2	43.8	96.09	52 41	17.49	3	45.5	96.49	54 21	17.68	2	47.2	96.91	57 32
18.03	1	40.4	95.27	1 20	17.97	1	42.0	95.65	3 54	17.27:	3	43.8	96.09	57 28	17.42	2	45.5	96.50	0 42	17.97	1	47.2	96.91	51 03
15.64	9	40.4	95.27	53 45	17.31	3	42.0	95.66	54 32	17.22	3	43.8	96.09	4 15	17.51	2	45.5	96.51	55 04	17.43	3	47.3	96.93	52 13
17.06	3	40.4	95.27	57 47	14.92	5	42.1	95.67	52 54	17.62	2	44.0	96.12	1 57	16.64	3	45.6	96.53	54 16	17.69	2	47.3	96.93	53 37
17.79	1	40.4	95.27	56 04	16.81	3	42.1	95.67	58 07	17.56	1	44.0	96.13	52 12	15.27	9	45.7	96.54	2 50	17.82	2	47.4	96.95	58 52
17.75	2	40.5	95.30	55 17	17.60	2	42.1	95.67	56 42	16.71	3	44.1	96.14	51 51	17.64	2	45.7	96.54	4 35	17.48	3	47.4	96.95	51 10
17.62	1	40.5	95.30	2 55	17.65	2	42.1	95.68	57 02	18.09	1	44.1	96.14	0 51	17.64	2	45.7	96.54	58 27	17.62	1	47.4	96.96	2 35
17.85	1	40.5	95.31	53 13	17.35	3	42.1	95.68	53 16	17.26	3	44.1	96.15	56 28	17.42	3	45.7	96.54	57 46	18.15	1	47.4	96.96	1 44
17.97	1	40.6	95.32	52 29	16.93	3	42.1	95.68	52 16	17.60	2	44.1	96.15	55 10	17.50	2	45.7	96.54	58 37	17.51	2	47.4	96.96	0 13
16.20	7	40.6	95.32	3 12	17.16	3	42.1	95.68	51 13	17.53	2	44.1	96.15	1 17	17.87	2	45.7	96.55	57 56	17.36	2	47.5	96.97	3 44
17.52	2	40.6	95.33	0 40	18.03	1	42.1	95.68	2 23	18.09	1	44.1	96.16	2 56	17.34	2	45.7	96.55	1 20	17.91	1	47.5	96.98	53 57
17.91	1	40.6	95.33	52 37	17.24	3	42.2	95.70	0 03	17.85	1	44.2	96.17	58 22	17.54	2	45.7	96.56	4 39	17.54	2	47.5	96.98	52 22
18.03	1	40.7	95.35	54 22	15.06	9	42.2	95.70	57 58	16.83	3	44.2	96.17	56 58	17.72	2	45.7	96.56	59 17	16.34	7	47.5	96.98	54 54
17.47	2	40.7	95.35	51 29	18.09	1	42.4	95.74	1 51	17.48	2	44.2	96.17	58 58	17.02	3	45.8	96.57	58 43	17.62	2	47.6	97.00	4 06
17.62	2	40.7	95.35	2 22	17.86	2	42.4	95.74	1 43	17.66	2	44.2	96.17	59 48	17.64	2	45.8	96.57	55 12	15.74	8	47.6	97.00	0 25
16.19	7	40.7	95.35	56 28	18.09	1	42.4	95.74	1 03	17.67	2	44.3	96.20	57 54	16.92	3	45.8	96.57	2 30	17.97	1	47.6	97.01	2 03
17.19	3	40.8	95.36	1 02	17.85	1	42.4	95.75	56 28	17.62	2	44.3	96.21	59 29	16.15	7	45.8	96.57	54 38	17.23	3	47.6	97.01	54 57
18.03	1	40.8	95.36	54 52	18.15	1	42.5	95.77	59 55	18.09	1	44.3	96.21	2 42	16.57	3	45.8	96.58	52 32	17.74	2	47.7	97.03	3 22
17.53	3	40.8	95.36	52 50	17.86	2	42.5	95.77	2 02	17.48	2	44.3	96.21	3 14	18.15	1	45.9	96.60	58 18	17.62	2	47.8	97.04	3 37
17.51	2	40.8	95.36	59 13	18.03	1	42.5	95.77	53 09	17.62	2	44.3	96.21	4 20	17.33	3	46.0	96.62	55 59	17.97	1	47.8	97.04	52 14
17.97	1	40.8	95.37	55 00	16.22	7	42.5	95.77	53 21	17.38	3	44.3	96.21	1 28	17.68	1	46.1	96.64	59 00	18.03	1	47.8	97.04	52 07
17.43	1	40.8	95.37	58 57	17.97	1	42.5	95.78	54 58	17.79	1	44.4	96.22	51 49	18.15	1	46.1	96.65	58 47	17.70	2	47.8	97.04	58 19
17.43	1	40.8	95.37	58 42	17.43	1	42.6	95.80	3 13	17.56	3	44.5	96.24	4 37	16.30	5	46.1	96.65	52 00	17.34	3	47.8	97.05	59 00
17.42	2	40.8	95.37	57 00	17.50	3	42.6	95.80	1 36	17.18	3	44.5	96.24	1 27	17.97	1	46.1	96.66	52 49	17.43	1	47.8	97.05	3 56
15.09	10	40.8	95.37	54 03	17.41	3	42.6	95.81	0 27	18.09	1	44.5	96.25	58 03	17.37	3	46.1	96.66	2 42	17.57	2	47.8	97.05	4 04
18.09	1	40.9	95.39	55 31	17.57	3	42.6	95.81	53 33	17.24	3	44.5	96.26	56 58	17.57	2	46.1	96.66	1 17	18.09	1	47.8	97.06	55 59
17.91	1	40.9	95.39	50 13	17.73	1	42.8	95.84	53 50	15.77	9	44.6	96.27	51 59	18.09	1	46.1	96.66	2 20	16.19	7	47.8	97.06	54 42
17.85	1	41.0	95.40	3 54	17.00	3	42.8	95.85	58 00	14.98	9	44.6	96.28	53 59	17.02	3	46.1	96.67	50 57	17.97	1	47.9	97.07	51 01
15.74	8	41.0	95.41	52 23	17.66	2	42.8	95.86	2 19	17.38	2	44.7	96.30	1 35	17.52	3	46.3	96.70	54 30	15.54	8	47.9	97.07	1 14
17.25	3	41.1	95.42	4 15	16.71	3	42.9	95.87	2 14	17.35	3	44.7	96.30	50 37	14.33	12	46.3	96.70	57 32	17.79	1	47.9	97.07	50 49
17.85	1	41.1	95.43	0 36	17.12	3	42.9	95.87	52 43	18.15	1	44.7	96.31	58 01	17.45	3	46.3	96.71	54 13	16.14	7	47.9	97.07	52 50
17.54	2	41.1	95.43	55 38	18.03	1	43.0	95.89	54 23	18.03	1	44.9	96.34	4 35	18.09	1	46.4	96.73	2 06	17.43	3	47.9	97.08	55 21
15.56	9	41.2	95.44	56 05	16.29	7	43.0	95.90	3 19	15.06	9	44.9	96.34	55 29	18.15	1	46.4	96.73	0 08	17.97	1	47.9	97.09	50 21
18.03	1	41.2	95.44	3 00	16.75	3	43.0	95.90	4 39	16.44	4	44.9	96.35	58 38	17.55	3	46.5	96.74	53 03	18.09	1	48.0	97.10	1 59

25 prec. + $85^s.2$, + 2′ 36″

751—810				811—870				871—930				931—990				991—1050			
Mag.	α 12ᵐ	x	y−60′ y	Mag.	α 12ᵐ	x	y−60′ y	Mag.	α 12ᵐ	x	y−60′ y	Mag.	α 12ᵐ	x	y−60′ y	Mag.	α 12ᵐ	x	y−60′ y
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
17.67 2	48.0	97.10	56 34	16.67 3	49.6	97.51	52 12	18.03 1	51.2	97.87	52 16	18.20 1	52.9	98.28	0 11	17.85 1	55.0	98.81	57 23
18.09 1	48.1	97.12	55 07	17.53 3	49.7	97.52	52 21	17.68 1	51.2	97.87	51 34	17.50 1	53.0	98.30	58 33	14.33 12	55.0	98.81	55 57
15.71 9	48.1	97.12	54 57	16.94 3	49.7	97.52	54 15	15.00 2	51.2	97.88	50 24	17.10 3	53.0	98.31	55 48	17.91 1	55.1	98.82	50 17
18.09 1	48.1	97.13	3 03	16.38 7	49.7	97.52	3 40	16.59 2	51.2	97.88	55 39	17.03 3	53.0	98.31	58 41	17.09 1	55.1	98.82	50 27
17.85 1	48.2	97.14	55 57	16.96 3	49.7	97.53	3 11	18.20 1	51.2	97.88	0 25	17.20 3	53.0	98.31	52 19	17.62 1	55.1	98.82	56 14
17.10 3	48.2	97.16	3 30	17.81 2	49.8	97.54	0 36	17.56 2	51.2	97.88	1 10	17.60 2	53.1	98.32	53 20	18.20 1	55.1	98.82	58 33
16.01 7	48.3	97.17	1 54	17.52 3	49.8	97.54	53 27	17.62 3	51.3	97.90	2 29	17.38 2	53.2	98.35	1 37	17.36 3	55.1	98.82	59 04
17.72 2	48.3	97.17	58 42	17.75 2	49.9	97.57	57 13	17.72 2	51.3	97.90	4 45	18.03 1	53.2	98.35	53 05	18.20 1	55.2	98.84	1 20
16.53 3	48.3	97.17	50 47	17.58 3	49.9	97.57	57 08	17.68 1	51.3	97.91	50 15	17.54 2	53.2	98.35	52 01	17.70 2	55.2	98.84	0 24
17.85 1	48.3	97.18	3 22	18.03 1	49.9	97.57	4 47	17.17 3	51.3	97.91	53 30	17.08 3	53.2	98.35	57 53	17.61 2	55.2	98.85	56 39
16.58 3	48.3	97.18	53 31	17.91 1	49.9	97.57	50 43	15.64 9	51.3	97.91	53 02	17.68 2	53.2	98.35	56 38	17.61 2	55.2	98.85	57 14
17.74 2	48.4	97.20	4 20	17.62 1	50.0	97.59	52 47	15.83 8	51.5	97.94	4 21	18.15 1	53.2	98.35	56 32	16.27 7	55.2	98.86	4 19
16.35 7	48.4	97.21	0 19	17.50 1	50.0	97.59	59 11	17.58 2	51.5	97.95	55 40	16.26 7	53.2	98.36	56 07	17.26 3	55.3	98.87	1 13
17.97 1	48.4	97.21	54 51	16.39 7	50.1	97.60	2 08	17.68 2	51.5	97.95	53 53	15.51 7	53.2	98.36	50 23	18.15 1	55.3	98.87	56 51
16.27 5	48.5	97.23	51 51	17.73 1	50.1	97.61	1 56	17.48 2	51.5	97.96	4 32	17.62 2	53.3	98.37	54 21	18.03 1	55.3	98.88	52 17
18.09 1	48.6	97.24	54 07	18.20 1	50.1	97.61	58 51	17.60 2	51.6	97.97	53 49	18.09 1	53.4	98.39	56 03	18.09 1	55.3	98.88	53 48
17.91 1	48.6	97.24	58 39	17.97 1	50.1	97.61	52 59	15.96 8	51.6	97.97	53 10	17.97 1	53.5	98.43	52 35	18.03 1	55.3	98.88	52 50
17.77 2	48.6	97.24	3 03	17.35 3	50.2	97.62	51 43	16.44 5	51.6	97.97	52 33	18.20 1	53.6	98.44	58 16	17.60 2	55.4	98.89	56 10
18.09 1	48.6	97.25	54 08	17.91 1	50.2	97.63	50 31	16.82 3	51.7	97.99	54 39	17.86 2	53.6	98.45	3 13	16.94 3	55.4	98.90	57 23
16.49 7	48.6	97.25	58 51	18.03 1	50.3	97.64	54 50	16.41 7	51.7	98.00	1 14	17.67 2	53.6	98.46	56 59	14.72 10	55.4	98.90	53 24
17.50 2	48.6	97.25	0 47	13.71 14	50.3	97.64	4 36	16.96 3	51.8	98.03	4 47	17.31 3	53.6	98.46	59 02	17.97 1	55.4	98.91	52 01
16.56 5	48.6	97.26	0 26	18.03 1	50.3	97.64	4 54	17.58 2	51.9	98.05	4 40	17.19 3	53.7	98.47	58 01	18.15 1	55.5	98.92	55 22
16.30 7	48.6	97.26	56 19	17.97 1	50.3	97.65	52 41	17.66 2	51.9	98.05	3 46	17.91 1	53.7	98.47	50 11	16.84 3	55.5	98.93	2 12
17.72 2	48.7	97.27	58 45	17.70 2	50.3	97.65	56 59	17.46 2	51.9	98.05	1 08	17.56 2	53.7	98.47	4 29	17.26 2	55.6	98.94	55 42
17.73 1	48.7	97.27	57 15	16.65 3	50.3	97.65	59 29	18.20 1	51.9	98.05	58 10	17.73 1	53.8	98.49	57 37	17.97 1	55.6	98.94	56 03
18.15 1	48.7	97.27	59 27	17.46 2	50.4	97.67	2 36	17.64 2	51.9	98.06	58 40	17.68 1	53.8	98.51	58 57	17.66 2	55.6	98.94	3 32
17.49 3	48.7	97.27	2 21	17.48 2	50.4	97.67	53 42	17.16 3	51.9	98.06	2 41	17.19 3	53.8	98.51	51 51	18.03 1	55.6	98.94	53 33
17.97 1	48.7	97.27	50 19	17.56* 1	50.4	97.68	54 36	17.79: 1	51.9	98.06	2 11	17.57 3	53.8	98.51	51 01	18.09 1	55.6	98.95	53 44
15.84 9	48.7	97.28	51 05	15.74 9	50.4	97.68	51 31	18.15 1	51.9	98.06	2 19	17.97 1	53.8	98.51	50 56	17.50 2	55.6	98.95	53 29
16.75 3	48.7	97.28	59 40	17.56 1	50.5	97.69	54 36	16.17 7	51.9	98.06	52 06	17.66 2	53.9	98.52	55 11	17.53 2	55.7	98.96	2 52
16.89 3	48.8	97.31	4 01	16.37 7	50.5	97.69	54 45	17.81 2	51.9	98.06	54 14	17.28 3	54.0	98.55	55 56	17.36 3	55.7	98.97	58 00
16.93 3	48.8	97.32	4 55	17.51 2	50.5	97.69	55 46	17.85 1	52.0	98.07	55 09	16.43 7	54.0	98.55	58 46	16.59 5	55.7	98.97	58 10
18.09 1	49.0	97.35	55 24	18.03 1	50.5	97.69	4 45	16.74 3	52.0	98.08	56 21	17.34 3	54.0	98.56	50 30	16.96 2	55.7	98.97	55 40
17.75 2	49.0	97.35	56 43	17.62 2	50.5	97.70	3 14	17.61 2	52.0	98.08	52 42	17.40 2	54.1	98.57	52 41	18.15 1	55.7	98.97	1 06
17.72 2	49.0	97.35	56 28	17.68 2	50.5	97.70	0 25	16.38 5	52.1	98.09	50 56	17.54 2	54.1	98.57	57 49	17.37 3	55.9	98.99	50 49
16.35 7	49.0	97.35	54 41	17.73 1	50.5	97.70	57 27	17.40 2	52.1	98.11	52 49	18.15 1	54.1	98.57	56 39	16.64 3	55.9	99.01	3 19
14.75 10	49.0	97.35	50 34	14.92 9	50.5	97.71	2 30	15.54 9	52.1	98.11	51 07	17.60 3	54.1	98.58	54 45	17.57 3	55.9	99.01	57 56
16.28 7	49.0	97.36	53 28	18.03 1	50.6	97.72	55 19	16.54 3	52.2	98.13	53 30	17.97 1	54.1	98.58	50 23	17.04 3	56.1	99.04	53 33
14.76 10	49.1	97.37	2 33	18.09 1	50.6	97.73	4 01	17.36 2	52.3	98.14	4 08	17.20 3	54.2	98.60	2 14	17.85 1	56.1	99.05	51 33
17.59 2	49.1	97.37	57 39	16.36 7	50.7	97.74	4 41	16.78 3	52.3	98.15	53 12	16.85 3	54.2	98.61	0 11	17.79 1	56.1	99.05	53 41
17.14 3	49.1	97.38	58 52	18.09 1	50.7	97.75	0 15	17.73 1	52.4	98.17	58 35	16.46 3	54.2	98.61	56 51	17.59 2	56.1	99.05	55 35
17.59 2	49.2	97.39	50 28	17.85 1	50.7	97.75	52 17	17.21 3	52.4	98.17	59 48	18.03 1	54.4	98.64	3 16	17.85 1	56.1	99.05	4 31
17.85 1	49.2	97.39	4 25	17.91 1	50.7	97.76	55 13	17.11 3	52.4	98.17	59 17	16.12 7	54.4	98.65	50 48	17.56 2	56.1	99.06	52 35
17.28 3	49.2	97.40	2 13	16.75 3	50.7	97.76	55 11	16.77 3	52.5	98.19	3 07	17.49 3	54.4	98.65	51 07	17.50 1	56.2	99.07	56 47
17.72 2	49.2	97.40	4 11	17.59 2	50.8	97.77	56 51	17.51 2	52.5	98.19	54 46	17.51 2	54.4	98.65	52 51	17.72 2	56.2	99.07	2 25
17.56 3	49.2	97.41	53 22	17.68 1	50.8	97.77	55 17	18.03 1	52.5	98.19	51 39	17.68 1	54.4	98.65	58 29	17.73 1	56.2	99.08	50 33
18.15 1	49.4	97.44	0 44	17.85 1	50.8	97.77	53 08	17.68 1	52.5	98.20	58 33	18.03 1	54.4	98.65	55 12	17.32 3	56.2	99.08	54 21
17.91 1	49.4	97.44	54 08	17.58 2	50.8	97.77	53 57	17.16 3	52.5	98.21	4 37	17.68 1	54.5	98.67	57 51	17.62 1	56.2	99.08	53 49
14.80 10	49.4	97.45	50 21	16.27 7	50.8	97.77	3 39	17.91 1	52.6	98.22	3 26	17.97 1	54.5	98.68	58 38	17.33 3	56.3	99.09	53 39
17.85 1	49.4	97.45	4 00	17.38 2	50.9	97.79	0 50	18.03 1	52.6	98.22	52 23	18.03 1	54.6	98.69	4 52	17.60 3	56.3	99.10	1 35
17.56 2	49.4	97.45	55 44	17.79 1	50.9	97.81	53 00	17.50 1	52.6	98.22	58 09	17.58 3	54.6	98.71	50 28	17.74 2	56.3	99.11	55 06
17.62 2	49.4	97.46	56 07	17.57 2	51.0	97.82	4 29	17.77 2	52.6	98.23	3 47	18.15 1	54.7	98.73	2 44	17.68 1	56.3	99.11	59 19
17.22 3	49.4	97.46	57 19	17.61 3	51.1	97.84	0 09	15.67 8	52.7	98.24	4 05	17.10 3	54.7	98.73	1 46	16.58 7	56.4	99.12	58 55
18.03 1	49.4	97.46	4 33	17.24 3	51.1	97.85	57 15	18.03 1	52.7	98.25	53 04	17.97 1	54.8	98.74	56 11	17.56 2	56.5	99.14	56 09
17.57 2	49.4	97.46	3 48	17.79 1	51.1	97.86	52 23	18.15 1	52.7	98.25	57 17	17.73 1	54.8	98.74	56 35	16.96 3	56.5	99.15	2 45
17.52 3	49.4	97.46	50 31	17.77 2	51.1	97.86	3 42	17.72 2	52.8	98.26	56 58	17.80 2	54.8	98.75	55 12	15.01 10	56.5	99.15	54 33
17.36 1	49.5	97.48	53 03	17.31 3	51.1	97.86	1 29	17.36 3	52.8	98.27	54 05	18.09 1	54.8	98.76	53 46	18.09 1	56.5	99.16	53 31
17.85 1	49.6	97.49	4 23	18.15 1	51.1	97.86	57 31	17.85 1	52.8	98.27	4 26	18.03 1	54.9	98.77	52 40	15.41 9	56.5	99.16	52 49
17.60 2	49.6	97.50	3 37	17.34 3	51.2	97.87	55 32	18.03 1	52.8	98.27	3 57	17.85 1	54.9	98.77	56 50	17.60 2	56.5	99.16	0 02
17.58 2	49.6	97.51	56 19	18.03 1	51.2	97.87	58 07	17.59 2	52.8	98.27	0 20	17.60 2	54.9	98.78	54 13	17.97 1	56.6	99.17	51 34

25 prec. + 85ˢ.2, + 2′ 37″

1051—1110				
Mag.		α 12m	x	y−60′ / y
		s	′	′ ″
17.51	3	56.6	99.17	51 43
17.53	2	56.6	99.17	53 49
17.68	2	56.6	99.18	51 20
15.11	9	56.6	99.18	54 24
17.53	2	56.6	99.18	54 11
17.62	1	56.6	99.18	54 37
16.81	3	56.6	99.18	4 25
17.48	3	56.7	99.19	58 51
16.71	3	56.7	99.20	59 32
17.62	1	56.7	99.21	53 20
17.91	1	56.9	99.24	57 59
17.50	2	56.9	99.24	3 29
17.38	3	56.9	99.24	0 36
14.76	10	56.9	99.25	4 56
17.48	3	56.9	99.25	53 07
17.43	1	56.9	99.26	54 22
17.72	2	56.9	99.26	2 23
15.12	9	56.9	99.26	1 58
17.55	3	57.0	99.27	50 28
17.54	2	57.0	99.27	51 35
18.20	1	57.0	99.27	56 30
17.03	3	57.1	99.29	0 56
17.32	3	57.1	99.30	1 15
17.77	2	57.1	99.31	3 15
15.05	9	57.1	99.31	58 14
17.62	1	57.1	99.31	54 44
17.68	2	57.2	99.32	55 33
18.20	1	57.3	99.35	58 57
17.56	1	57.3	99.35	59 29
16.50	7	57.3	99.35	57 22
17.62	3	57.3	99.35	55 06
14.43	11	57.3	99.35	3 50
16.59	7	57.3	99.36	1 26
17.52	3	57.3	99.36	52 32
17.68	2	57.4	99.37	54 32
17.97	1	57.4	99.38	52 07
18.20	1	57.5	99.39	59 40
14.79	10	57.5	99.39	3 40
17.02	3	57.5	99.41	52 43
17.97	1	57.6	99.42	0 19
16.76	3	57.6	99.43	2 45
17.75	2	57.7	99.44	3 56
18.09	1	57.7	99.44	3 22
17.14	3	57.7	99.44	57 15
16.51	7	57.7	99.44	57 17
18.20	1	57.7	99.45	58 05
16.51	7	57.8	99.47	58 21
17.79	1	57.8	99.47	51 03
17.91	1	57.8	99.47	51 07
17.68	1	57.9	99.49	59 57
17.97	1	57.9	99.50	59 34
17.46	2	57.9	99.50	3 01
17.40	3	57.9	99.50	2 57
16.15	7	58.0	99.53	53 24
17.56	2	58.1	99.55	52 27
17.91	1	58.1	99.55	56 43
17.48	3	58.1	99.56	51 59
18.15	1	58.1	99.56	0 21
17.50	2	58.2	99.57	4 39
17.58	3	58.2	99.57	53 38

1111—1170				
Mag.		α 12m	x	y−60′ / y
		s	′	′ ″
17.40	3	58.2	99.57	55 41
17.56	1	58.3	99.59	51 46
17.70w	2	58	99.6	58 42
18.03	1	58.3	99.60	4 00
17.85	1	58.3	99.61	56 45
15.91	9	58.4	99.62	54 54
17.02	2	58.5	99.64	57 55
18.03	1	58.5	99.65	4 29
18.20	1	58.5	99.65	0 54
17.64	2	58.6	99.66	3 40
17.88	2	58.6	99.66	2 23
17.68	1	58.6	99.66	56 05
17.70	2	58.6	99.67	55 25
16.77	3	58.6	99.67	52 14
17.97	1	58.6	99.67	50 01
16.70	3	58.6	99.67	51 36
9.42w	8	58.8	99.71	59 02
17.42	2	58.8	99.71	4 34
18.09	1	58.8	99.71	55 06
17.51	3	58.9	99.73	3 10
17.59	2	58.9	99.73	2 33
17.29	3	58.9	99.73	0 57
17.62	1	59.0	99.74	1 16
16.38	7	59.0	99.74	56 54
14.99	10	59.0	99.76	52 11
17.49	3	59.0	99.76	0 48
13.65	14	59.0	99.76	56 02
17.48	2	59.1	99.77	52 42
17.44	3	59.1	99.77	52 55
17.62	1	59.1	99.77	53 24
17.52	3	59.1	99.77	2 26
17.73	1	59.1	99.78	59 41
17.97	1	59.2	99.79	52 36
17.66	2	59.2	99.81	4 41
18.20	1	59.2	99.81	1 40
18.15	1	59.2	99.81	2 00
17.51	3	59.4	99.84	51 11
18.09	1	59.4	99.85	54 44
18.15	1	59.4	99.85	56 29
16.33*	1	59.4	99.85	58 42
18.15	1	59.4	99.85	0 23
17.59	3	59.4	99.86	54 38
16.71	1	59.4	99.86	58 43
16.73	3	59.5	99.87	2 47
16.83	3	59.5	99.88	55 15
15.62	9	59.6	99.89	4 11
18.09	1	59.6	99.90	3 40
17.62	1	59.6	99.90	53 31
17.97	1	59.7	99.92	50 03
18.20	1	59.7	99.93	1 28
17.91	1	59.8	99.94	3 51
16.91	3	59.8	99.95	54 51
17.79	1	59.8	99.96	52 59
17.31	3	59.8	99.96	55 29
18.20	1	59.9	99.97	57 06
18.20	1	59.9	99.97	1 29
15.94	7	59.9	99.98	2 08
18.03	1	59.9	99.98	53 25
17.46	3	60.0	99.99	1 09
17.06	3	60.0	0.01	51 46

1171—1230				
Mag.		α 13m	x	y−60′ / y
		s	′	′ ″
17.06	3	0.2	0.04	52 55
17.50	3	0.2	0.06	52 35
14.74	11	0.3	0.07	52 44
18.09	1	0.3	0.07	53 25
17.34	2	0.3	0.08	50 10
17.68	2	0.3	0.08	58 09
17.53	3	0.4	0.10	50 08
18.09	1	0.4	0.11	59 23
17.72	2	0.4	0.11	57 29
18.25	1	0.4	0.11	58 27
17.41	3	0.5	0.12	0 39
12.96	17	0.5	0.13	53 59
17.57	3	0.6	0.14	50 56
17.61	2	0.6	0.15	56 40
18.15	1	0.6	0.15	2 09
16.53	5	0.6	0.15	3 33
18.15	1	0.6	0.16	1 44
18.03	1	0.6	0.16	52 06
17.52	3	0.6	0.16	54 08
17.58	3	0.7	0.17	51 06
17.37	3	0.7	0.18	51 01
16.40	5	0.8	0.19	54 24
17.49	3	0.8	0.21	51 22
15.02	10	0.8	0.21	53 47
17.62	1	0.8	0.21	0 10
15.97	7	1.0	0.24	59 23
17.64	2	1.0	0.26	55 09
16.97	3	1.0	0.26	54 48
17.79	1	1.0	0.26	0 03
18.20	1	1.1	0.27	0 26
17.60	3	1.1	0.27	54 37
18.15	1	1.2	0.30	1 21
17.34	3	1.3	0.32	56 44
16.98	3	1.3	0.33	53 02
15.66	9	1.4	0.34	1 42
17.11	3	1.4	0.34	4 36
17.73	1	1.4	0.35	59 05
18.20	1	1.5	0.36	57 16
17.91	1	1.5	0.36	4 24
17.32	3	1.5	0.37	1 03
18.09	1	1.6	0.39	55 20
18.03	1	1.7	0.40	52 15
17.68	2	1.7	0.41	52 48
15.18	9	1.7	0.41	52 26
17.56	3	1.7	0.41	51 33
17.57	2	1.7	0.41	51 43
15.71	8	1.7	0.41	58 45
17.62	2	1.8	0.43	54 23
17.79	1	1.9	0.44	59 51
17.56	2	1.9	0.44	59 41
15.94	8	1.9	0.45	56 29
18.09	1	1.9	0.45	56 50
17.91	1	1.9	0.45	55 55
17.58	3	1.9	0.45	3 18
18.03	1	1.9	0.45	4 36
18.15	1	1.9	0.46	2 17
16.21	7	1.9	0.46	55 12
18.20	1	2.0	0.47	57 28
17.61	2	2.0	0.47	56 22
18.25	1	2.1	0.50	59 39

1231—1290				
Mag.		α 13m	x	y−60′ / y
		s	′	′ ″
17.97	1	2.1	0.50	58 03
17.97	1	2.1	0.51	50 22
17.97	1	2.1	0.51	52 45
17.73	1	2.2	0.52	59 14
17.85	1	2.2	0.53	3 47
16.95	2	2.2	0.53	1 50
17.73	1	2.3	0.54	58 30
16.86	3	2.3	0.54	55 20
17.58	2	2.3	0.54	51 41
17.97	1	2.3	0.56	51 01
17.61	2	2.3	0.56	0 17
17.43	1	2.3	0.56	1 45
17.36	3	2.4	0.57	51 08
17.68	2	2.4	0.57	52 02
18.03	1	2.4	0.58	52 19
17.73	1	2.4	0.58	55 12
17.10	3	2.5	0.59	58 55
17.97	1	2.5	0.59	51 37
16.46	7	2.5	0.61	1 32
18.20	1	2.7	0.66	1 07
17.64	2	2.8	0.67	55 16
17.32	2	2.8	0.68	59 55
17.06	3	2.8	0.68	53 21
17.70	2	2.9	0.70	57 35
17.88	2	2.9	0.70	1 03
17.78	2	2.9	0.70	2 37
18.03	1	3.0	0.73	0 31
17.49	3	3.0	0.73	1 39
17.65	2	3.1	0.74	51 52
17.64	2	3.1	0.75	53 51
17.56*	1	3.1	0.75	51 37
17.29	1	3.1	0.75	51 35
17.91	1	3.1	0.75	51 20
18.15	1	3.1	0.76	2 15
17.50	2	3.2	0.77	52 35
17.62	1	3.2	0.77	57 30
17.60	2	3.3	0.80	4 49
16.87	3	3.3	0.80	3 11
13.51	14	3.3	0.80	0 13
17.05	3	3.3	0.80	54 01
17.49	3	3.3	0.81	53 29
14.75	10	3.3	0.81	51 56
17.42	2	3.4	0.83	53 41
17.54	3	3.4	0.83	2 38
16.53	5	3.5	0.84	57 45
17.61	2	3.5	0.85	56 36
18.20	1	3.5	0.85	57 52
17.91	1	3.5	0.85	0 47
17.59	2	3.5	0.86	4 11
15.60	9	3.5	0.86	1 37
17.97	1	3.5	0.86	50 44
15.79	9	3.5	0.86	53 03
18.15	1	3.6	0.87	55 36
17.39	2	3.6	0.88	53 28
17.55	3	3.7	0.89	51 01
17.73	1	3.7	0.89	59 31
17.58	2	3.7	0.89	57 34
18.20	1	3.7	0.91	59 42
17.44	3	3.7	0.91	1 56
18.09	1	3.9	0.94	55 20

1291—1350				
Mag.		α 13m	x	y−60′ / y
		s	′	′ ″
17.50	2	3.9	0.95	53 41
17.46	2	3.9	0.96	53 46
17.68	1	3.9	0.96	53 56
18.09	1	4.0	0.97	54 18
18.20	1	4.0	0.97	56 39
17.51	2	4.0	0.97	1 51
17.05	3	4.0	0.97	1 29
18.20	1	4.1	1.01	0 42
16.64	4	4.1	1.01	57 43
16.42	7	4.1	1.01	59 10
18.09	1	4.3	1.04	55 18
17.73	1	4.3	1.04	59 02
18.03	1	4.3	1.04	52 04
17.57	3	4.3	1.04	50 50
17.48	2	4.3	1.04	3 09
18.09	1	4.4	1.06	2 51
15.53	9	4.4	1.06	2 02
17.01	3	4.4	1.06	56 21
17.40	2	4.4	1.06	50 00
17.71	2	4.4	1.07	50 24
17.59	2	4.4	1.07	4 14
17.97	1	4.5	1.08	50 28
17.39	3	4.5	1.08	53 33
16.86	3	4.5	1.08	56 39
17.85	1	4.5	1.08	4 51
17.44	3	4.5	1.09	53 38
18.03	1	4.6	1.11	51 57
15.34	9	4.6	1.11	52 26
17.50	1	4.7	1.12	58 15
17.67	2	4.8	1.14	0 20
17.75	2	4.8	1.16	1 26
17.59	2	4.9	1.17	58 32
17.91	1	4.9	1.17	50 31
18.09	1	4.9	1.18	3 36
16.33*	1	5.0	1.20	55 18
17.57	3	5.0	1.21	57 28
17.68	1	5.0	1.21	57 09
16.08	2	5.0	1.21	55 16
17.68	2	5.1	1.23	4 58
18.15	1	5.2	1.24	57 00
17.18	3	5.2	1.24	51 41
16.89	3	5.2	1.25	54 42
17.68	2	5.2	1.26	51 46
16.92	3	5.2	1.26	3 47
17.65	2	5.3	1.26	55 57
16.11	8	5.3	1.27	51 10
17.56	2	5.3	1.28	53 15
18.15	1	5.4	1.30	55 02
17.54	2	5.4	1.30	58 00
15.94	8	5.4	1.30	55 14
18.15	1	5.4	1.31	59 33
18.20	1	5.5	1.33	0 09
17.68	1	5.5	1.33	57 47
18.20	1	5.6	1.35	56 40
17.50	2	5.6	1.35	59 39
17.56	2	5.7	1.37	52 31
17.98	2	5.7	1.38	58 39
16.30	7	5.7	1.38	56 52
18.09	1	5.8	1.40	54 13
16.69	3	5.9	1.42	57 55

25 prec. + 85ˢ.2, + 2′ 37″

1351—1410					1411—1470					1471—1530					1531—1590					1591—1650				
Mag.		α 13^{m}	x	$y-60'$ y	Mag.		α 13^{m}	x	$y-60'$ y	Mag.		α 13^{m}	x	$y-60'$ y	Mag.		α 13^{m}	x	$y-60'$ y	Mag.		α 13^{m}	x	$y-60'$ y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
17.40	2	6.0	1.44	53 11	17.58	2	7.7	1.84	55 01	17.60	2	9.5	2.29	54 53	14.29	12	11.6	2.80	0 13	17.97	1	13.2	3.21	58 35
16.29	7	6.0	1.45	57 42	17.67	3	7.7	1.85	59 21	17.54	2	9.5	2.30	4 50	17.72	2	11.7	2.83	0 55	17.51	2	13.3	3.22	55 49
16.34	7	6.0	1.45	55 12	18.20	1	7.7	1.86	59 37	18.15	1	9.5	2.30	0 44	17.51	3	11.8	2.84	52 47	18.03	1	13.3	3.23	4 24
18.20	1	6.1	1.47	59 08	18.03	1	7.7	1.86	52 15	17.34	3	9.5	2.31	56 37	17.14	3	11.8	2.84	4 16	17.10	3	13.3	3.23	0 21
18.09	1	6.1	1.47	55 37	18.03	1	7.8	1.87	52 39	18.03	1	9.6	2.33	52 13	17.57	3	11.8	2.85	4 49	17.72	3	13.4	3.24	0 27
16.94	3	6.1	1.47	55 23	17.56	2	7.9	1.89	0 22	15.70	9	9.7	2.34	52 08	16.07	7	11.8	2.85	4 12	18.03	1	13.4	3.24	4 24
16.31	7	6.1	1.47	56 11	17.62	1	7.9	1.91	57 50	18.15	1	9.7	2.34	1 21	17.68	1	11.8	2.85	54 12	17.62	2	13.4	3.25	4 40
18.09	1	6.1	1.48	54 37	17.58	2	7.9	1.91	54 54	16.50	5	9.7	2.35	1 07	18.15	1	11.8	2.85	58 41	16.01	8	13.4	3.25	57 26
13.78	14	6.2	1.49	0 03	15.47	9	7.9	1.91	2 25	18.15	1	9.7	2.35	56 43	17.91	1	11.8	2.86	51 13	17.85	1	13.4	3.25	56 39
18.20	1	6.2	1.50	58 49	18.09	1	8.1	1.94	3 51	17.51	3	9.7	2.36	4 58	17.64	2	11.9	2.88	55 10	16.30	5	13.5	3.27	53 23
16.07	8	6.3	1.52	51 57	17.27	3	8.1	1.94	58 55	17.85	1	9.7	2.36	1 45	18.03	1	12.0	2.90	52 35	17.29	3	13.5	3.27	56 02
17.64	2	6.4	1.54	3 28	16.77	3	8.1	1.94	59 19	17.01*	1	9.8	2.37	53 42	18.03	1	12.0	2.90	52 17	17.62	2	13.5	3.27	2 32
17.55	3	6.4	1.54	3 39	18.03	1	8.1	1.94	52 55	17.64	2	9.8	2.38	54 21	17.37	3	12.0	2.91	57 57	17.57	3	13.5	3.27	2 45
16.50	3	6.4	1.55	59 09	16.26	1	8.1	1.96	0 03	16.05	2	9.9	2.39	53 43	18.09	1	12.0	2.91	2 28	17.04	3	13.6	3.28	2 22
17.60	2	6.4	1.55	4 49	17.79	1	8.1	1.96	52 09	17.97	1	9.9	2.41	56 10	17.67	2	12.2	2.94	0 00	18.15	1	13.6	3.28	58 29
17.21	3	6.4	1.56	3 20	17.38	2	8.2	1.98	52 16	15.16	9	10.1	2.45	54 03	17.22	3	12.2	2.94	58 21	17.97	1	13.7	3.30	51 44
17.79	1	6.5	1.57	52 43	18.09	1	8.3	1.99	3 11	18.20	1	10.1	2.45	58 18	18.15	1	12.2	2.95	59 07	18.09	1	13.7	3.30	2 57
17.97	1	6.5	1.57	51 47	17.91	1	8.3	2.00	58 10	17.69	2	10.1	2.45	4 00	15.68	8	12.2	2.95	1 54	17.04	3	13.7	3.30	4 35
18.03	1	6.5	1.57	51 31	18.09	1	8.4	2.02	55 25	18.20	1	10.2	2.46	58 11	17.85	1	12.2	2.96	51 51	17.58	2	13.7	3.31	4 55
16.08	7	6.5	1.58	52 45	17.50	2	8.4	2.03	0 30	16.77	3	10.2	2.46	55 46	16.71	1	12.2	2.96	2 10	15.82	8	13.8	3.32	52 17
15.92	8	6.6	1.60	2 07	16.90	3	8.4	2.03	4 09	17.30	3	10.2	2.47	2 16	18.03	1	12.3	2.98	53 00	18.15	1	13.9	3.34	0 02
16.42	7	6.7	1.62	55 29	17.67	2	8.5	2.04	2 02	17.80	2	10.2	2.47	51 36	18.15	1	12.4	2.99	0 40	17.54	3	13.9	3.35	55 41
16.39	7	6.7	1.62	58 12	16.98	3	8.5	2.04	59 41	17.53	3	10.2	2.47	57 51	17.40w	2	12	3.0	1 36	17.12	3	13.9	3.35	54 03
17.54	2	6.7	1.63	55 12	17.58	2	8.5	2.04	50 26	15.96	8	10.3	2.48	56 40	17.85	1	12.4	3.00	52 18	17.54	2	13.9	3.36	52 34
12.54w	16	6.7	1.63	3 41	17.62	1	8.5	2.05	52 49	17.60	3	10.4	2.51	51 48	17.57	2	12.4	3.01	52 35	17.70	2	13.9	3.36	0 40
16.78	2	6.8	1.64	4 55	17.74	2	8.5	2.05	3 19	17.33	3	10.5	2.52	59 35	17.82	2	12.4	3.01	57 41	18.09	1	13.9	3.36	3 15
16.64	3	6.8	1.64	2 19	16.25	7	8.5	2.06	1 51	14.99	9	10.5	2.53	58 42	18.15	1	12.4	3.01	0 51	17.29	3	13.9	3.36	4 20
17.00	3	6.8	1.64	2 14	17.56	3	8.5	2.06	53 17	17.33	3	10.7	2.57	50 34	17.70	2	12.4	3.01	3 40	16.80	3	13.9	3.36	57 14
16.87	3	6.8	1.64	59 11	17.55	3	8.5	2.06	52 57	17.49	3	10.7	2.57	52 15	13.17	15	12.5	3.02	3 13	16.24	7	13.9	3.36	57 33
17.62	2	6.8	1.65	53 39	14.43	12	8.5	2.06	57 04	17.50	3	10.7	2.58	50 05	18.09	1	12.5	3.03	55 29	16.93	3	14.0	3.37	55 44
16.98	3	6.8	1.65	50 10	17.68	2	8.6	2.07	52 34	17.20	3	10.7	2.58	52 58	16.26	7	12.5	3.03	57 37	17.69	2	14.0	3.37	54 31
17.79	1	6.8	1.66	4 58	17.12	2	8.6	2.07	52 16	17.97	1	10.8	2.59	52 17	16.24	7	12.5	3.03	2 54	17.41	3	14.1	3.40	59 23
17.39	3	6.8	1.66	2 40	18.20	1	8.7	2.10	59 10	18.15	1	10.8	2.59	57 00	17.18	3	12.6	3.04	59 50	18.03	1	14.2	3.42	52 16
15.73	9	6.9	1.67	53 01	18.15	1	8.7	2.11	0 46	16.82	3	10.8	2.59	55 55	17.56	3	12.6	3.04	51 54	15.91	9	14.2	3.42	51 51
14.99	9	6.9	1.67	54 05	17.30	3	8.8	2.12	56 03	16.61	5	10.8	2.60	57 34	18.09	1	12.6	3.04	0 44	18.09	1	14.2	3.43	0 11
17.57	3	6.9	1.67	51 41	17.72	2	8.9	2.13	4 33	16.02	7	10.8	2.61	59 20	17.81	2	12.6	3.04	3 57	13.09	16	14.2	3.43	2 09
17.49	3	6.9	1.68	54 17	18.20	1	8.9	2.14	0 37	17.46	3	10.9	2.63	59 07	15.68	5	12.6	3.04	3 18	16.79	3	14.3	3.45	50 30
17.76	2	6.9	1.68	59 01	17.62	2	8.9	2.15	1 00	17.66	2	11.0	2.64	4 20	17.56	2	12.6	3.05	55 55	16.69	3	14.4	3.47	51 53
15.37	9	7.0	1.69	4 48	18.09	1	8.9	2.15	3 30	17.91	1	11.0	2.65	50 52	16.26	8	12.6	3.06	55 39	18.03	1	14.4	3.47	52 15
18.20	1	7.0	1.70	1 37	16.60	5	8.9	2.15	2 02	17.64	2	11.0	2.66	52 35	17.40	3	12.6	3.06	1 58	18.09	1	14.4	3.47	55 15
17.36	3	7.0	1.70	50 08	17.97	1	8.9	2.15	53 19	17.54	2	11.0	2.66	3 47	16.08	9	12.7	3.07	51 34	16.87	3	14.4	3.48	58 27
16.17	5	7.0	1.71	51 08	17.01	3	8.9	2.15	51 04	17.47	3	11.0	2.66	58 50	17.62	1	12.7	3.07	56 08	12.97	16	14.4	3.48	56 15
17.72	2	7.0	1.71	53 39	17.39	3	9.0	2.17	54 11	17.96	2	11.1	2.67	58 07	18.15	1	12.7	3.07	59 30	17.12	3	14.5	3.50	4 34
17.67	3	7.2	1.74	0 23	18.09	1	9.0	2.17	54 18	17.51	3	11.1	2.67	58 24	17.17	3	12.8	3.10	55 02	17.01	3	14.5	3.51	56 45
16.87	3	7.2	1.75	0 45	17.66	2	9.0	2.17	52 01	17.50	3	11.1	2.67	54 11	17.85	1	12.8	3.11	58 45	16.83	3	14.7	3.55	58 38
17.64	2	7.2	1.75	0 29	18.09	1	9.0	2.17	55 52	16.41	7	11.1	2.67	0 31	17.42	3	12.8	3.11	4 17	16.18	7	14.7	3.55	4 23
18.03	1	7.2	1.75	59 37	17.50	3	9.0	2.17	56 09	17.97	1	11.1	2.68	51 44	17.49	3	12.9	3.13	4 07	17.59	3	14.7	3.55	53 35
17.21	3	7.2	1.75	56 46	17.85	1	9.0	2.17	57 50	17.31	3	11.2	2.71	58 23	16.63	3	13.0	3.14	1 49	16.08	8	14.7	3.56	51 44
17.62	2	7.3	1.77	51 03	15.77	9	9.1	2.21	59 44	16.76	3	11.3	2.72	3 18	17.70	2	13.0	3.14	58 31	17.59	2	14.7	3.56	2 21
17.91	1	7.4	1.79	59 53	17.49	3	9.2	2.22	55 34	18.09	1	11.3	2.73	55 29	17.57	3	13.0	3.14	50 25	17.91	1	14.8	3.57	51 50
17.78	2	7.4	1.79	55 43	14.10	12	9.2	2.23	1 33	14.76	9	11.4	2.74	57 32	17.59	2	13.0	3.15	54 31	17.79	1	14.8	3.57	53 44
17.50	3	7.5	1.81	50 18	18.09	1	9.2	2.23	3 36	12.78	17	11.4	2.74	0 38	17.97	1	13.0	3.15	57 09	16.07	8	14.8	3.57	50 17
15.90	8	7.6	1.82	51 52	18.09	1	9.3	2.24	4 05	16.93	3	11.4	2.75	56 06	17.09	1	13.0	3.16	0 38	17.23	3	14.8	3.57	51 34
17.79	1	7.6	1.83	53 05	17.60	2	9.3	2.24	4 13	17.64	2	11.4	2.76	2 22	16.21	7	13.2	3.19	52 47	17.21	3	14.8	3.57	56 43
17.56	3	7.6	1.83	53 09	16.89	3	9.3	2.25	54 56	17.97	1	11.4	2.76	51 32	17.51	2	13.2	3.19	53 35	17.62	2	14.8	3.58	59 12
17.62	3	7.6	1.83	57 29	18.03	1	9.3	2.26	53 11	18.15	1	11.4	2.76	56 41	17.51	2	13.2	3.19	53 32	17.72	2	14.9	3.60	58 55
18.20	1	7.6	1.83	1 07	17.42	3	9.3	2.26	53 43	16.80	3	11.5	2.77	54 51	18.15	1	13.2	3.19	58 46	17.66	2	14.9	3.60	55 33
17.10	3	7.6	1.83	1 45	17.64	2	9.3	2.26	1 59	16.20	7	11.5	2.77	50 44	17.58	2	13.2	3.20	3 03	17.61	2	14.9	3.61	59 07
16.86	3	7.7	1.84	2 56	17.65	2	9.4	2.27	55 22	15.22	9	11.5	2.78	51 22	17.56	3	13.2	3.20	2 42	18.03	1	14.9	3.61	52 45
16.60	3	7.7	1.84	0 02	17.61	2	9.5	2.29	58 47	17.74	2	11.5	2.78	55 35	18.03	1	13.2	3.21	53 28	17.61	2	15.1	3.64	59 20

25 prec. + 85$^{\mathrm{s}}$.2, + 2′ 37″

1651—1710

Mag.		α 13m	x	y − 60′ y
		s	′	′ ″
17.51	2	15.1	3.64	53 01
17.85	1	15.1	3.65	52 11
16.77	3	15.1	3.66	4 11
16.65	3	15.2	3.67	4 36
17.32	3	15.2	3.67	54 09
18.09	1	15.2	3.68	59 08
15.19	9	15.3	3.69	59 02
17.53	2	15.3	3.71	56 16
16.18	8	15.4	3.72	1 49
17.50	1	15.5	3.75	53 03
17.52	3	15.6	3.75	51 45
17.10	3	15.6	3.75	58 50
17.26	2	15.6	3.77	57 25
17.48	3	15.6	3.77	51 37
17.44	2	15.6	3.77	53 08
17.05	3	15.6	3.77	54 40
16.82	3	15.7	3.81	50 52
18.03	1	15.7	3.81	4 42
17.66	2	15.8	3.82	1 23
17.49	3	15.8	3.82	53 14
17.37	2	15.8	3.83	3 47
17.53	2	15.9	3.84	2 02
18.15	1	15.9	3.84	58 19
15.88	7	15.9	3.84	57 59
16.96	3	15.9	3.85	3 16
17.54	2	15.9	3.85	54 53
17.52	3	15.9	3.85	54 28
16.81	3	15.9	3.85	50 41
18.03	1	15.9	3.86	2 59
18.03	1	15.9	3.86	4 40
17.56	2	15.9	3.86	59 45
17.85	1	16.0	3.87	59 16
17.42	3	16.0	3.87	50 01
17.06	3	16.0	3.87	52 59
18.03	1	16.1	3.90	0 04
17.86	2	16.1	3.91	51 23
17.50	3	16.2	3.93	0 29
14.16	11	16.3	3.94	1 58
16.56	3	16.3	3.94	59 40
16.80	3	16.3	3.95	57 25
18.09	1	16.3	3.95	57 14
17.53	3	16.3	3.95	50 23
17.17	3	16.3	3.95	53 09
16.78	3	16.4	3.96	53 11
11.02w	14	16.4	3.97	55 22
14.85:	2	16.7	4.02	2 33
16.13	7	16.8	4.04	4 07
16.98	3	16.8	4.04	56 14
15.51	9	16.8	4.05	56 02
17.36	3	16.8	4.05	3 11
17.58	3	16.9	4.07	3 57
17.39	3	16.9	4.07	55 56
17.53	2	16.9	4.07	56 58
17.37	2	16.9	4.07	53 26
16.92	3	16.9	4.08	51 19
18.03	1	16.9	4.08	53 46
18.03	1	17.0	4.09	52 31
16.29	7	17.0	4.09	54 50
17.97	1	17.0	4.09	4 10
16.51	3	17.0	4.10	2 56

1711—1770

Mag.		α 13m	x	y − 60′ y
		s	′	′ ″
17.66	2	17.2	4.16	1 06
17.97	1	17.2	4.16	59 53
17.79	1	17.3	4.17	54 52
14.90	9	17.3	4.17	53 04
16.99	3	17.3	4.17	55 23
17.51	2	17.3	4.17	55 14
17.75	2	17.3	4.18	55 47
17.48	2	17.3	4.18	58 22
16.44	3	17.4	4.20	50 09
17.58	3	17.4	4.20	1 26
18.09	1	17.5	4.23	59 29
17.35	3	17.5	4.23	52 44
17.91	1	17.6	4.25	56 50
17.38	2	17.6	4.25	51 45
17.56	1	17.6	4.25	53 01
17.53	2	17.6	4.26	56 49
15.50	9	17.6	4.26	3 46
17.66	2	17.7	4.27	57 08
17.30	3	17.7	4.27	56 02
17.50	1	17.7	4.27	54 42
18.15	1	17.7	4.27	59 42
17.47	3	17.8	4.29	55 25
15.88	7	17.8	4.30	2 22
16.15	7	17.8	4.31	3 50
17.36	1	17.8	4.31	52 59
16.31	7	17.9	4.33	55 08
18.03	1	17.9	4.33	4 28
18.09	1	18.0	4.34	0 02
17.47	3	18.0	4.34	56 40
17.53	3	18.0	4.35	52 24
14.69	10	18.0	4.35	2 38
18.03	1	18.0	4.36	3 34
17.59	2	18.0	4.36	56 45
16.86	1	18.1	4.38	55 21
14.96	9	18.2	4.40	59 02
17.01	1	18.2	4.40	55 22
17.40	3	18.2	4.40	4 05
17.71	2	18.3	4.42	58 50
15.50	9	18.3	4.43	1 04
17.57	3	18.3	4.43	51 04
18.09	1	18.4	4.45	56 54
15.78	9	18.4	4.45	57 42
16.20	7	18.4	4.45	57 35
17.57	2	18.4	4.46	3 01
18.03	1	18.5	4.47	53 45
18.03	1	18.5	4.47	53 58
16.74	3	18.5	4.48	51 39
17.44	3	18.5	4.48	50 43
17.58	2	18.8	4.55	55 55
17.37	3	18.8	4.56	50 17
16.93	3	18.8	4.56	3 38
17.49	3	19.0	4.61	51 20
17.60	2	19.1	4.63	59 19
17.53	3	19.1	4.63	4 53
18.09	1	19.2	4.64	1 01
18.09	1	19.2	4.65	1 50
16.90	3	19.2	4.65	0 08
17.69	2	19.3	4.66	56 45
17.91	1	19.3	4.66	55 46
17.21	3	19.3	4.66	56 24

1771—1830

Mag.		α 13m	x	y − 60′ y
		s	′	′ ″
16.18:	7	19.3	4.67	57 43
16.99	3	19.3	4.67	50 40
16.50	3	19.5	4.71	4 41
17.58	2	19.5	4.71	59 56
17.41	3	19.5	4.71	59 12
16.42	7	19.6	4.72	57 53
17.57	2	19.7	4.74	55 41
15.48	9	19.7	4.76	51 14
15.46	9	19.8	4.77	53 00
16.13	8	19.8	4.77	2 41
17.85	1	19.8	4.78	55 47
17.85	1	19.9	4.79	2 29
17.59	2	20.0	4.82	0 41
17.59	3	20.1	4.84	54 42
17.13	3	20.1	4.85	4 07
18.03	1	20.1	4.85	3 43
18.03	1	20.1	4.85	4 17
17.54:	3	20.1	4.85	1 52
16.63	3	20.1	4.86	1 19
17.53	2	20.1	4.86	58 57
16.81	3	20.1	4.86	50 19
17.32	3	20.2	4.87	51 48
14.35	12	20.2	4.87	0 12
17.97	1	20.3	4.89	52 06
18.09	1	20.3	4.90	1 05
17.41	3	20.3	4.90	50 46
16.35	5	20.3	4.91	59 37
16.41	3	20.3	4.91	55 20
17.58	3	20.4	4.92	52 23
17.79	1	20.4	4.93	56 48
17.49	3	20.5	4.94	57 09
17.91	1	20.5	4.95	50 28
17.57	2	20.5	4.95	2 01
16.05	7	20.6	4.96	4 01
17.51	2	20.6	4.97	57 34
18.09	1	20.6	4.97	57 41
16.02	7	20.6	4.97	52 35
14.62	11	20.7	4.99	54 30
17.60	2	20.7	5.00	1 20
18.09	1	20.7	5.01	56 57
17.91	1	20.7	5.01	50 42
17.79	1	20.9	5.05	2 20
17.05	3	20.9	5.06	0 12
17.75	2	21.0	5.08	57 38
16.19	7	21.0	5.08	57 18
16.84	3	21.0	5.08	52 06
17.45	3	21.0	5.08	53 03
17.58	2	21.0	5.09	56 12
15.59	8	21.1	5.11	56 59
18.03	1	21.3	5.14	56 44
17.49	3	21.3	5.15	58 18
18.03	1	21.3	5.15	55 04
16.68	3	21.3	5.15	2 05
17.47	3	21.3	5.16	4 21
14.88	9	21.4	5.18	2 12
17.91	1	21.6	5.22	52 22
17.60	2	21.6	5.22	56 44
18.03	1	21.7	5.24	57 20
17.73	3	21.7	5.25	4 30
18.09	1	21.7	5.25	0 02

1831—1890

Mag.		α 13m	x	y − 60′ y
		s	′	′ ″
16.06	7	21.7	5.25	52 37
17.97	1	21.7	5.25	52 02
17.97	1	21.7	5.26	50 57
15.41	9	21.8	5.27	56 55
17.30	3	21.8	5.28	51 17
16.74	3	21.9	5.30	1 46
18.03	1	21.9	5.31	1 38
17.56	2	22.0	5.32	59 40
17.64	3	22.0	5.33	4 55
17.43	3	22.1	5.34	3 44
18.03	1	22.1	5.35	4 45
17.50	2	22.1	5.35	2 18
18.03	1	22.1	5.36	55 24
17.97	1	22.2	5.36	51 30
16.53	3	22.3	5.38	2 52
17.23	3	22.4	5.40	3 43
17.54	3	22.4	5.41	1 18
17.40	2	22.4	5.41	55 46
18.03	1	22.4	5.41	57 29
17.51	3	22.4	5.41	51 36
17.50	1	22.6	5.44	2 53
17.91	1	22.6	5.45	50 42
16.22	7	22.6	5.45	54 48
16.71	3	22.6	5.45	57 42
17.67	3	22.6	5.46	55 00
17.58	3	22.6	5.46	56 31
17.73	1	22.6	5.46	56 43
17.34	3	22.7	5.47	2 54
17.47	3	22.7	5.47	56 56
18.09	1	22.8	5.49	59 53
17.56	3	22.8	5.50	54 08
17.75	2	22.9	5.52	57 59
17.46	2	22.9	5.52	2 03
17.24	3	22.9	5.53	0 05
16.01	8	23.0	5.54	53 54
16.84	3	23.0	5.55	58 24
16.26	7	23.0	5.56	57 51
17.59	2	23.0	5.56	56 18
17.53	3	23.0	5.56	50 10
17.16	3	23.0	5.56	0 05
17.50	3	23.2	5.59	1 18
18.03	1	23.2	5.61	54 15
17.68	1	23.3	5.62	52 51
17.52	3	23.3	5.63	0 29
16.94	3	23.3	5.66	0 49
16.68	3	23.5	5.67	52 19
17.00	3	23.5	5.68	51 48
18.03	1	23.6	5.69	54 01
14.30	12	23.6	5.69	2 37
16.97	3	23.7	5.73	51 03
16.76	3	23.7	5.73	0 59
17.97	1	23.8	5.75	1 52
17.97	1	23.8	5.75	0 47
17.78	2	23.8	5.75	3 27
16.41	1	23.8	5.76	52 58
18.03	1	23.8	5.76	55 26
17.61	3	23.9	5.77	3 49
17.35	3	23.9	5.78	56 10
18.03	1	23.9	5.78	53 30
17.61	3	24.0	5.81	4 12

1891—1950

Mag.		α 13m	x	y − 60′ y
		s	′	′ ″
17.46	3	24.0	5.81	51 37
14.69	10	24.1	5.82	50 52
16.70	3	24.1	5.83	54 50
17.69	2	24.1	5.83	59 12
17.56	3	24.2	5.84	1 25
15.49	9	24.2	5.85	1 11
16.93	3	24.2	5.86	52 35
18.03	1	24.3	5.87	55 01
17.22	1	24.4	5.91	50 03
17.80	2	24.4	5.91	3 53
18.03	1	24.5	5.93	2 16
17.32	3	24.6	5.94	3 01
17.37	3	24.6	5.94	4 13
17.34	3	24.6	5.94	57 20
17.55	3	24.6	5.94	57 07
16.42	5	24.6	5.95	56 59
17.85	1	24.6	5.95	56 37
17.86	2	24.6	5.96	3 34
17.59	2	24.7	5.97	0 07
16.88	3	24.7	5.97	3 03
16.00	7	24.7	5.97	57 23
17.44	2	24.7	5.98	58 25
17.48	2	24.7	5.98	58 54
17.09	1	24.8	5.99	1 11
17.14	3	24.8	5.99	56 35
17.39	3	24.8	6.00	59 44
17.28	3	24.8	6.00	2 09
17.15	3	24.8	6.00	1 36
16.24	7	24.8	6.01	57 13
16.85	3	24.8	6.01	51 38
15.80	9	24.9	6.03	51 00
17.38	3	25.0	6.04	52 28
17.45	3	25.0	6.04	56 57
15.09	7	25.0	6.05	1 12
17.50	3	25.0	6.05	59 41
17.56	2	25.1	6.06	57 20
17.11	3	25.1	6.06	3 05
16.47	3	25.1	6.06	4 17
18.03	1	25.1	6.07	57 43
17.56	3	25.1	6.07	54 41
17.43	3	25.2	6.08	3 20
16.54	3	25.2	6.09	1 49
17.50	3	25.2	6.09	52 41
17.10	3	25.3	6.10	3 14
17.54	3	25.3	6.11	58 47
17.51	3	25.4	6.12	55 22
17.62	1	25.5	6.15	59 01
17.21	3	25.5	6.15	59 48
17.85	1	25.5	6.16	55 24
17.54	3	25.5	6.16	58 38
17.48	3	25.6	6.17	59 17
18.03	1	25.6	6.17	57 00
17.39	2	25.6	6.17	58 33
18.03	1	25.6	6.17	54 40
17.54	2	25.6	6.17	2 53
14.39	12	25.6	6.17	1 59
17.36	1	25.7	6.20	4 20
17.53	3	25.7	6.20	57 44
15.65	5	25.8	6.22	1 33
14.34	12	25.9	6.25	52 59

25 prec. + $85^{\mathrm{s}}.2$, + 2′ 38″

1951—1970					1971—1990					1991—2010					2011—2030				
Mag.		α 13^m	x	y−60′ y	Mag.		α 13^m	x	y−60′ y	Mag.		α 13^m	x	y−60′ y	Mag.		α 13^m	x	y−60′ y
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
17.29	1	25.9	6.25	50 15	17.57	2	26.8	6.47	57 55	17.43	1	27.6	6.67	50 05	17.63	3	28.4	6.85	58 20
17.46	3	25.9	6.26	58 25	18.03	1	26.8	6.47	57 17	17.43	3	27.6	6.68	54 38	17.97	1	28.4	6.85	54 00
17.78	2	26.0	6.27	56 49	16.55	3	26.8	6.47	56 31	17.97	1	27.7	6.71	4 34	17.22	1	28.4	6.85	50 10
16.91	3	26.0	6.27	52 26	15.78	8	26.8	6.48	52 02	17.29	1	27.9	6.74	50 35	17.56	3	28.4	6.86	1 49
17.48	3	26.0	6.27	53 33	18.03	1	27.0	6.52	55 43	17.48	2	28.0	6.76	54 01	17.56	3	28.4	6.86	57 20
15.91	8	26.1	6.31	55 57	18.03	1	27.0	6.52	59 49	17.68	3	28.0	6.76	53 24	17.73	1	28.5	6.87	56 15
17.46	3	26.2	6.32	52 38	17.79	1	27.1	6.54	1 13	17.97	1	28.0	6.76	53 04	16.32	5	28.5	6.87	58 09
16.90	3	26.3	6.35	0 09	17.18	3	27.1	6.55	2 43	17.58	3	28.0	6.76	55 18	17.01	3	28.5	6.87	55 55
17.57	2	26.3	6.35	57 15	18.03	1	27.1	6.55	2 51	16.12	7	28.0	6.76	3 29	17.97	1	28.5	6.87	53 42
17.73	2	26.4	6.37	54 09	17.19	3	27.1	6.56	0 03	16.60	3	28.0	6.76	3 14	15.92	8	28.5	6.87	51 20
16.48	1	26.4	6.37	50 10	15.77	9	27.1	6.56	56 25	16.57	3	28.0	6.76	0 02	17.45	3	28.5	6.87	0 13
17.68	2	26.4	6.38	59 53	17.23	3	27.2	6.58	56 42	17.49	3	28.0	6.77	3 39	16.93	3	28.6	6.90	55 08
16.99	3	26.6	6.43	51 41	18.03	1	27.3	6.61	59 54	17.22	1	28.1	6.78	50 32	17.97	1	28.7	6.92	4 53
15.40	7	26.6	6.43	4 42	16.87	3	27.3	6.61	57 17	16.98	3	28.1	6.79	57 20	17.40	3	28.8	6.94	0 21
17.01	3	26.7	6.44	4 46	17.61	3	27.4	6.62	54 03	18.03	1	28.1	6.79	56 02	18.03	1	28.8	6.94	58 58
17.97	1	26.7	6.45	59 10	15.78	9	27.5	6.65	4 23	17.54	3	28.2	6.80	4 21	17.35	3	28.8	6.95	52 38
17.43	3	26.7	6.46	56 14	17.52	2	27.5	6.65	53 41	17.22	1	28.2	6.81	50 45	17.67	3	28.8	6.95	56 02
17.02	3	26.7	6.46	56 41	13.97	13	27.5	6.66	1 45	17.47	3	28.3	6.82	54 33	17.73	1	28.8	6.96	58 47
16.98	3	26.7	6.46	54 14	17.73	1	27.5	6.66	51 54	17.47	3	28.3	6.83	56 41	16.31	5	28.9	6.97	58 34
16.71	1	26.8	6.47	1 12	16.10	7	27.5	6.66	52 38	18.03	1	28.4	6.84	56 19	17.57	3	29.0	7.00	2 54

25 prec. $+ 85\overset{s}{.}2, + 2' 38''$

19^h Area 135. Supplementary Stars − 14°, − 15°

1s—30s					31s—60s					61s—90s					91s—120s					121s—150s				
Mag.		α 12^m	x	y−60′ y	Mag.		α 12^m	x	y−60′ y	Mag.		α 12^m	x	y−60′ y	Mag.		α 12^m	x	y−60′ y	Mag.		α 12^m	x	y−60′ y
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
15.10	5	15	89.2	57.6	16.85	2	18	90.0	0.1	17.32	2	21	90.6	54.1	17.50	2	23	91.0	3.3	17.62	2	25	91.6	0.1
17.48	2	15	89.2	59.4	17.45	2	18	90.0	0.6	15.81	7	21	90.6	56.4	16.58	2	23	91.0	3.8	16.33	4	25	91.6	1.0
16.19	4	15	89.2	0.6	17.46	2	18	90.0	1.3	16.22	4	21	90.6	57.2	17.50	2	23	91.1	53.2	17.54	2	25	91.6	2.8
17.24	2	15	89.2	1.0	16.00	7	19	90.1	0.1	15.93	7	21	90.6	57.4	16.12	6	23	91.1	53.6	14.40	9	25	91.6	3.6
16.99	2	16	89.4	56.4	17.16	2	19	90.1	0.4	17 38	2	21	90.6	58.4	17.44	2	24	91.2	53.4	17.32	2	25	91.6	4.4
15.88	7	16	89.4	56.8	17.40	2	20	90.2	54.2	17.18	2	21	90.6	59.2	17.50	2	23	91.2	54.5	16.72	2	25	91.6	4.8
15.16	5	16	89.4	57.6	17.50	2	20	90.2	55.0	17.54	2	21	90.6	59.4	17.52	2	24	91.2	56.2	16.78	2	25	91.6	5.0
17.42	2	16	89.4	0.6	17.48	2	20	90.2	55.6	16.02	6	21	90.6	0.1	17.59	2	24	91.2	57.6	17.40	2	26	91.7	52.4
17.32	2	17	89.5	56.6	17.35	2	19	90.2	58.0	16.84	2	21	90.6	1.0	17.18	2	24	91.2	57.9	17.50	2	26	91.7	52.6
17.29	2	17	89.6	55.4	15.88	7	20	90.2	58.3	16.06	6	21	90.6	1.7	17.06	2	24	91.2	59.0	16.66	2	26	91.7	54.0
15.96	5	17	89.6	56.0	17.46	2	19	90.2	58.4	15.95	7	21	90.6	2.6	16.63	2	23	91.2	59.2	17.35	2	26	91.7	55.0
17.50	2	17	89.6	57.2	12.78	15	20	90.2	59.0	17.27	2	21	90.6	4.1	17.44	2	24	91.2	2.0	17.54	2	26	91.7	0.1
17.44	2	17	89.6	0.6	17.54	2	19	90.2	59.6	17.45	2	21	90.6	4.4	16.62	2	24	91.2	4.6	16.56	2	26	91.8	53.2
16.86	2	17	89.6	1.2	17.48	2	19	90.2	0.0	17.45	2	22	90.8	53.1	11.85	14	24	91.3	53.6	17.54	2	26	91.8	54.4
17.48	2	17	89.7	56.5	16.09	6	20	90.2	1.4	16.80	2	22	90.8	53.2	17.47	2	24	91.3	57.6	16.96	2	26	91.8	55.3
15.92	7	18	89.8	56.6	17.50	2	20	90.3	55.2	16.56	2	22	90.8	55.3	17.59	2	24	91.3	59.4	17.62	2	26	91.8	56.4
12.65	14	18	89.8	57.2	17.45	2	20	90.3	55.4	10.61	9	22	90.8	55.6	17.54	2	24	91.3	2.7	17.42	2	26	91.8	57.0
17.45	2	18	89.8	59.0	17.42	2	20	90.3	4.0	17.50	2	22	90.8	58.1	17.40	2	24	91.3	5.6	16.34	4	26	91.8	57.4
17.27	2	18	89.8	0.0	15.84	6	20	90.4	55.0	16.94	2	22	90.8	0.9	13.32	12	25	91.4	52.6	17.16	2	26	91.8	57.6
17.45	2	18	89.8	0.6	16.72	2	20	90.4	56.8	17.45	2	22	90.8	2.6	15.13	6	24	91.4	54.0	15.53	7	26	91.8	0.1
16.66	2	18	89.8	1.0	17.50	2	20	90.4	57.2	15.93	7	23	91.0	54.6	16.19	4	25	91.4	54.2	14.92	8	26	91.8	1.4
17.44	2	18	89.8	2.3	17.35	2	20	90.4	59.5	16.90	2	23	91.0	56.7	14.98	8	25	91.4	56.0	17.52	2	26	91.8	2.0
17.42	2	18	89.8	2.6	16.14	6	20	90.4	59.6	16.12	6	23	91.0	58.3	17.59	2	24	91.4	57.6	17.33	2	26	91.8	3.4
16.94	2	18	89.8	3.0	17.39	2	20	90.4	0.6	17.43	2	23	91.0	58.4	17.59	2	24	91.4	0.0	16.23	4	26	91.8	3.6
16.56	2	18	89.9	56.6	15.92	6	20	90.4	0.7	17.15	2	23	91.0	58.6	17.36	2	24	91.4	3.4	17.54	2	26	91.8	4.1
17.42	2	18	89.9	1.6	16.09	6	20	90.4	0.8	15.63	7	23	91.0	0.1	17.38	2	25	91.6	52.3	17.00	2	26	91.8	4.4
15.33	7	18	90.0	55.0	16.51	2	20	90.4	4.2	16.60	2	23	91.0	0.4	15.92	7	25	91.6	56.4	17.50	2	26	91.9	52.2
16.94	2	19	90.0	56.4	15.27	7	21	90.5	57.0	17.58	2	23	91.0	0.8	17.54	2	25	91.6	57.6	16.97	2	26	91.9	53.2
17.44	2	19	90.0	56.5	16.72	2	21	90.5	58.5	17.38	2	23	91.0	1.4	17.30	2	25	91.6	58.7	17.45	2	26	91.9	3.0
17.48	2	19	90.0	58.7	16.74	2	21	90.6	53.9	17.48	2	23	91.0	2.4	17.46	2	25	91.6	59.4	15.79	7	27	92.0	55.6

25 prec. $+ 85\overset{s}{.}2, + 2' 36''$

151*s*—210*s*					211*s*—270*s*					271*s*—330*s*					331*s*—390*s*					391*s*—450*s*				
Mag.		α 12^m	x	$y-60'$ / y	Mag.		α 12^m	x	$y-60'$ / y	Mag.		α 12^m	x	$y-60'$ / y	Mag.		α 12^m	x	$y-60'$ / y	Mag.		α 13^m	x	$y-60'$ / y
		s	′	′			s	′	′			s	′	′			s	′	′			s	′	′
15.02	8	27	92.0	56.3	14.37	10	42	95.7	7.4	17.47	2	50	97.6	49.1	15.60	7	58	99.5	8.6	16.61	2	8	1.8	7.6
17.07	2	27	92.0	56.6	16.84	2	43	95.8	6.4	15.55	7	50	97.6	5.1	17.58	2	58	99.6	5.6	16.40	2	7	1.8	9.0
17.53	2	27	92.0	59.6	15.19	7	42	95.8	8.6	17.52	2	50	97.6	5.3	17.48	2	59	99.6	8.6	17.46	2	8	1.8	9.2
17.28	2	27	92.0	59.8	17.56	2	43	95.9	6.8	15.33	7	50	97.6	7.6	17.14	2	58	99.6	9.2	15.82	6	8	1.9	5.8
17.62	2	27	92.0	0.2	14.87	8	43	96.0	5.1	17.50	2	50	97.6	8.8	16.24	6	59	99.8	5.2	17.59	2	8	1.9	7.1
17.52	2	27	92.0	4.2	17.54	2	43	96.0	5.8	17.64	2	50	97.7	5.3	17.62	2	59	99.8	6.0	17.29	2	8	2.0	48.6
17.38	2	27	92.0	5.4	17.52	2	43	96.0	6.8	15.36	7	51	97.8	49.2	17.29	2	59	99.8	8.4	17.06	2	8	2.0	49.8
16.02	6	27	92.0	6.2	16.58	2	44	96.0	8.2	15.99	7	51	97.8	49.7	16.68	2	59	99.8	9.2	17.68	2	8	2.0	5.0
17.42	2	28	92.2	6.2	17.00	2	44	96.2	5.1	16.17	6	51	97.8	6.0	16.96	2	60	99.9	48.4	17.59	2	8	2.0	7.4
16.08	6	30	92.6	5.0	17.63	2	44	96.2	5.6	15.23	7	51	97.8	7.3	16.59	2	60	99.9	49.0	15.32	7	9	2.1	7.4
17.28	2	30	92.7	5.0	17.04	2	44	96.2	6.0	17.54	2	51	97.8	7.8	16.10	6	60	0.0	48.6	17.13	2	9	2.2	49.3
17.40	2	30	92.7	6.8	17.59	2	44	96.2	6.7	15.21	7	51	97.8	9.4	17.52	2	60	0.0	7.4	14.51	10	9	2.2	49.9
17.08	2	30	92.8	5.0	15.72	7	44	96.2	6.9	16.15	4	52	98.0	48.4	17.44	2	60	0.0	7.8	17.38	2	9	2.2	6.3
17.12	2	30	92.8	5.6	14.52	10	44	96.2	7.2	17.27	2	52	98.0	49.8	17.06	2	60	0.0	9.0	14.14	10	9	2.2	8.9
17.14	2	30	92.8	6.2	13.72	12	44	96.2	7.8	13.03	15	52	98.0	5.4	16.66	2	60	0.0	9.6	15.93	7	10	2.3	9.1
15.15	7	31	92.9	5.6	17.62	2	45	96.3	6.0	17.58	2	52	98.0	5.5	17.15	2	61	0.2	5.8	16.76	2	10	2.4	48.8
17.06	2	31	93.0	5.6	17.00	2	45	96.3	7.1	15.96	6	52	98.0	5.6	16.68	2	61	0.2	6.4	16.00	7	10	2.4	49.4
16.08	6	31	93.0	6.0	17.03	2	45	96.4	49.1	17.64	2	52	98.0	6.6	16.19	6	61	0.2	7.0	17.47	2	10	2.4	49.6
17.40	2	31	93.0	6.6	16.78	2	45	96.4	49.4	17.54	2	52	98.0	8.0	15.18	7	61	0.2	7.5	16.83	2	10	2.4	7.3
17.24	2	31	93.1	5.6	17.22	2	45	96.4	49.8	17.45	2	53	98.2	48.6	17.52	2	61	0.2	8.0	14.50	10	10	2.4	7.8
17.54	2	33	93.4	6.0	17.50	2	45	96.4	49.9	17.15	2	53	98.2	7.1	15.22	6	61	0.2	8.8	14.30	9	10	2.5	5.8
17.32	2	32	93.4	7.2	16.20	6	45	96.4	6.0	17.48	2	53	98.3	48.8	17.26	2	61	0.3	8.1	16.10	6	10	2.5	6.6
17.50	2	33	93.5	7.3	15.92	7	45	96.4	8.2	16.57	2	53	98.4	48.5	17.48	2	61	0.3	8.2	15.60	7	10	2.5	8.6
16.14	6	34	93.6	5.4	17.47	2	45	96.4	8.6	17.54	2	53	98.4	49.6	17.04	2	61	0.3	9.1	17.29	2	11	2.6	49.1
17.20	2	34	93.6	6.2	17.45	2	45	96.4	8.7	17.16	2	53	98.4	6.8	15.97	7	62	0.4	7.2	16.70	2	11	2.6	5.0
16.16	6	34	93.8	5.4	17.64	2	46	96.5	6.2	17.50	2	53	98.4	8.4	17.48	2	61	0.4	8.4	16.26	4	11	2.6	6.4
17.02	2	35	93.8	6.0	17.43	2	46	96.5	6.9	17.45	2	53	98.4	8.6	17.39	2	62	0.4	8.6	17.30	2	11	2.6	8.1
17.50	2	35	93.9	7.5	16.85	2	46	96.6	48.8	16.14	6	54	98.4	9.2	17.19	2	63	0.6	5.6	16.06	6	11	2.6	8.4
16.55	2	35	94.0	6.0	17.04	2	46	96.6	5.1	17.30	2	54	98.6	48.3	14.81	8	63	0.6	6.1	17.40	2	11	2.6	8.6
17.44	2	35	94.0	6.7	17.26	2	46	96.6	5.7	17.54	2	54	98.6	50.0	16.96	2	62	0.6	6.3	17.56	2	11	2.7	6.8
17.48	2	35	94.0	7.0	16.43	4	46	96.6	5.8	17.54	2	54	98.6	6.8	16.72	2	63	0.8	48.6	17.40	2	12	2.8	48.9
17.58	2	36	94.2	5.6	17.62	2	46	96.6	6.0	15.15	7	54	98.6	7.4	13.79	12	64	0.8	49.0	16.62	2	12	2.8	49.0
15.84	7	36	94.2	6.6	16.83	2	46	96.6	7.1	17.50	2	54	98.6	9.0	16.92	2	64	0.8	49.9	15.90	7	12	2.8	49.2
17.38	2	36	94.2	7.8	15.93	6	46	96.6	8.1	17.50	2	55	98.8	48.8	15.84	6	64	0.8	5.6	14.29	9	11	2.8	8.8
16.16	6	37	94.4	6.0	13.09	15	47	96.8	6.7	16.09	4	55	98.8	49.0	17.34	2	64	0.8	6.0	16.61	2	12	2.9	5.6
16.83	2	38	94.6	6.2	16.07	6	47	96.9	7.2	17.32	2	55	98.8	49.4	17.14	2	64	0.9	5.8	16.18	6	12	2.9	6.2
15.97	6	38	94.6	6.6	16.04	6	47	96.9	9.0	13.89	12	55	98.8	6.1	16.82	2	64	1.0	6.4	16.72	2	12	2.9	8.4
15.36	7	37	94.6	7.0	17.50	2	47	97.0	49.4	14.70	9	55	98.8	6.6	17.56	2	64	1.0	6.6	15.97	7	12	3.0	49.6
17.54	2	38	94.7	5.8	15.79	7	48	97.0	8.2	17.54	2	55	98.8	7.4	16.56	2	64	1.0	7.9	17.42	2	13	3.0	6.8
17.04	2	39	94.8	8.4	17.45	2	47	97.0	8.6	17.42	2	55	98.8	9.6	17.24	2	65	1.2	8.4	17.31	2	12	3.0	7.2
16.88	2	39	94.9	49.7	17.50	2	48	97.0	9.0	16.66	2	56	99.0	5.3	16.57	2	65	1.2	8.6	15.67	7	13	3.0	8.8
17.48	2	39	94.9	6.8	16.02	5	48	97.1	6.7	17.59	2	56	99.0	6.8	17.46	2	65	1.2	8.8	17.24	2	13	3.2	5.4
17.53	2	40	95.0	5.2	17.45	2	48	97.1	8.6	17.06	2	56	99.0	7.0	16.86	2	65	1.3	5.4	16.92	2	13	3.2	8.0
17.50	2	39	95.0	6.6	17.45	2	49	97.2	49.1	17.47	2	56	99.0	7.6	13.19	15	65	1.3	6.6	17.48	2	14	3.3	8.6
15.56	7	39	95.0	7.6	17.29	2	48	97.2	5.9	17.58	2	56	99.0	7.8	17.30	2	66	1.4	48.4	16.67	2	14	3.4	49.3
17.30	2	39	95.0	8.2	17.05	2	48	97.2	7.4	16.66	2	56	99.0	8.3	17.47	2	66	1.4	48.6	17.45	2	14	3.4	49.4
17.45	2	40	95.1	49.6	15.83	7	49	97.2	8.5	15.54	7	56	99.0	8.8	17.58	2	66	1.4	7.8	17.48	2	14	3.4	49.7
17.27	2	40	95.1	8.1	17.44	2	49	97.2	8.6	17.50	2	56	99.1	48.8	16.86	2	66	1.4	8.0	16.16	6	14	3.4	6.1
17.25	2	40	95.2	5.3	15.92	7	48	97.2	8.8	17.59	2	56	99.1	6.6	15.70	5	66	1.5	7.3	14.65	9	14	3.4	7.0
17.32	2	40	95.2	5.8	17.40	2	48	97.2	9.4	14.01	11	57	99.2	6.4	15.66	6	67	1.6	5.6	17.50	2	14	3.4	8.5
16.74	2	40	95.2	7.0	17.47	2	49	97.3	49.6	15.38	7	56	99.2	7.4	16.17	5	67	1.6	5.8	16.90	2	14	3.5	6.0
17.38	2	41	95.3	49.6	16.92	2	49	97.3	5.9	17.52	2	57	99.3	49.8	16.56	2	67	1.6	6.1	17.02	2	15	3.6	49.0
15.87	7	41	95.4	49.2	17.42	2	49	97.4	48.6	16.94	2	57	99.3	5.9	17.03	2	67	1.6	6.4	16.88	2	15	3.6	5.2
16.07	6	41	95.4	49.6	17.24	2	49	97.4	48.8	17.50	2	57	99.4	48.7	15.71	7	66	1.6	6.8	15.78	7	15	3.6	8.4
16.30	2	41	95.4	49.9	16.37	2	49	97.4	49.8	15.90	7	58	99.4	49.2	17.13	2	67	1.6	8.2	17.47	2	15	3.6	8.6
17.42	2	42	95.6	49.4	16.58	2	49	97.4	5.2	17.56	2	58	99.4	6.4	15.51	7	66	1.6	9.3	14.88	8	16	3.8	49.0
16.90	2	42	95.6	5.3	17.12	2	49	97.4	8.8	17.50	2	58	99.4	8.2	17.52	2	67	1.7	8.1	16.03	6	16	3.8	5.1
14.68	8	42	95.6	7.9	17.45	2	49	97.4	9.2	17.06	2	58	99.4	8.6	16.14	4	68	1.8	48.6	16.05	6	16	3.8	5.6
16.95	2	42	95.6	8.6	17.38	2	50	97.5	48.5	17.20	2	58	99.5	50.0	17.64	2	67	1.8	5.6	17.62	2	16	3.8	6.0
14.34	10	42	95.6	8.9	17.36	2	50	97.5	49.2	17.58	2	58	99.5	6.2	17.58	2	67	1.8	7.2	14.56	7	16	3.8	6.3

25 prec. + $85^s.2$, + 2′ 37″

451*s*—510*s*					511*s*—570*s*					571*s*—630*s*					631*s*—681*s*				
Mag.		α 13^{m}	x	$y-60'$ y	Mag.		α 13^{m}	x	$y-60'$ y	Mag.		α 13^{m}	x	$y-60'$ y	Mag.		α 13^{m}	x	$y-60'$ y
		s	′	′			s	′	′			s	′	′			s	′	′
17.34	2	16	3.8	6.4	15.83	7	31	7.4	52.4	17.22	2	34	8.1	54.6	16.61	2	37	9.0	55.1
16.78	2	16	3.8	8.8	16.08	6	30	7.4	52.9	17.54	2	34	8.1	55.4	16.94	2	37	9.0	56.3
17.47	2	16	4.0	49.6	16.30	4	31	7.4	53.6	17.50	2	34	8.2	53.3	17.38	2	37	9.0	58.6
17.54	2	17	4.0	6.4	17.64	2	31	7.4	56.6	15.93	7	34	8.2	53.6	17.45	2	37	9.0	59.6
17.08	2	16	4.0	6.8	17.23	2	30	7.4	58.4	15.62	7	34	8.2	54.2	16.96	2	37	9.0	0.4
17.25	2	17	4.0	7.0	17.50	2	30	7.4	58.7	15.64	7	34	8.2	54.3	15.64	7	37	9.0	3.2
17.54	2	16	4.0	7.4	17.49	2	31	7.4	1.8	17.00	2	34	8.2	55.6	17.50	2	38	9.1	1.7
17.33	2	17	4.2	49.4	17.54	2	30	7.4	3.0	16.22	4	34	8.2	57.2	17.35	2	38	9.2	54.9
17.38	2	17	4.2	6.4	13.61	12	31	7.4	3.4	17.49	2	34	8.2	57.4	16.16	4	38	9.2	55.0
12.10	14	18	4.2	7.6	17.54	2	31	7.4	3.8	15.90	7	34	8.2	58.2	13.10	14	38	9.2	56.1
17.18	2	18	4.4	5.8	16.88	2	30	7.4	4.0	15.30	7	34	8.2	59.2	17.47	2	38	9.2	56.2
16.44	2	18	4.4	6.8	17.54	2	31	7.4	4.2	17.41	2	34	8.2	59.4	15.54	6	38	9.2	57.0
15.98	7	18	4.4	8.3	17.06	2	30	7.4	4.4	16.02	7	34	8.2	0.8	16.70	2	38	9.2	57.8
15.96	6	19	4.5	5.6	15.71	7	31	7.4	4.6	16.15	6	34	8.2	1.1	17.22	2	38	9.2	58.3
16.15	4	19	4.5	7.6	16.48	2	31	7.4	5.3	16.91	2	34	8.2	2.8	17.39	2	38	9.2	59.7
16.80	2	19	4.6	6.0	17.47	2	30	7.4	5.4	17.46	2	34	8.2	3.2	17.50	2	38	9.2	3.4
17.26	2	19	4.6	6.2	17.40	2	31	7.4	5.6	17.15	2	34	8.2	4.0	17.32	2	38	9.3	55.4
17.54	2	19	4.7	7.0	17.38	2	30	7.4	5.9	17.48	2	34	8.3	2.2	17.20	2	38	9.3	0.9
17.48	2	20	4.8	6.8	16.60	2	31	7.5	54.4	17.38	2	35	8.4	53.0	16.88	2	39	9.4	55.3
17.50	2	20	4.8	7.0	17.54	2	31	7.5	4.0	17.46	2	35	8.4	53.8	14.44	10	39	9.4	57.6
17.39	2	20	4.8	8.0	17.30	2	31	7.5	6.4	15.98	7	35	8.4	54.1	17.26	2	39	9.4	58.2
15.30	7	20	4.9	5.2	17.44	2	31	7.6	51.7	15.49	7	35	8.4	57.6	16.93	2	39	9.4	59.2
16.32	4	21	5.0	5.2	17.35	2	32	7.6	51.8	17.54	2	35	8.4	57.8	15.98	7	39	9.4	59.6
17.52	2	21	5.0	6.4	17.50	2	31	7.6	52.5	17.56	2	35	8.4	59.6	17.42	2	39	9.4	0.4
16.50	2	21	5.1	7.6	13.47	12	31	7.6	52.9	15.32	7	35	8.4	0.1	17.48	2	39	9.4	0.6
14.99	8	21	5.2	6.4	14.64	8	32	7.6	53.6	16.54	2	35	8.5	53.1	16.06	7	39	9.4	1.8
17.45	2	22	5.2	6.5	17.56	2	32	7.6	55.0	16.41	2	35	8.5	53.6	17.45	2	39	9.5	2.8
17.04	2	21	5.2	6.6	17.36	2	32	7.6	56.3	17.54	2	35	8.5	1.0	17.45	2	40	9.6	54.6
17.47	2	22	5.2	7.6	13.99	10	31	7.6	57.2	17.54	2	35	8.5	1.6	16.02	6	40	9.6	55.8
17.45	2	22	5.2	7.8	13.25	13	31	7.6	58.1	16.92	2	35	8.5	4.0	17.50	2	40	9.6	58.6
16.71	2	23	5.4	6.8	16.16	6	31	7.6	1.7	16.59	2	36	8.6	53.3	17.48	2	40	9.6	0.2
17.15	2	22	5.4	7.2	17.56	2	31	7.6	2.6	16.21	4	35	8.6	57.3	17.50	2	40	9.6	0.6
16.93	2	23	5.6	5.1	17.45	2	32	7.6	5.8	16.86	2	35	8.6	57.4	17.48	2	40	9.6	0.8
17.59	2	23	5.6	5.6	16.57	2	31	7.6	6.1	17.33	2	36	8.6	1.2	17.02	2	40	9.6	1.4
16.88	2	24	5.8	7.4	17.40	2	32	7.7	54.9	15.99	7	36	8.6	1.8	17.28	2	40	9.7	58.1
17.28	2	24	5.8	7.5	17.28	2	33	7.8	51.8	17.52	2	36	8.6	2.4	15.84	7	40	9.8	55.2
16.88	2	25	6.0	6.2	17.54	2	32	7.8	54.1	16.02	6	35	8.6	2.6	14.36	10	40	9.8	55.6
17.17	2	25	6.0	6.3	14.63	10	33	7.8	55.9	17.40	2	36	8.6	3.0	17.48	2	41	9.8	57.0
16.56	2	25	6.0	6.4	14.54	9	32	7.8	56.0	12.12	14	35	8.6	3.6	16.05	7	41	9.8	59.9
17.52	2	26	6.4	5.6	17.54	2	33	7.8	57.9	14.99	7	36	8.6	4.7	17.48	2	40	9.8	1.4
17.50	2	28	6.6	6.4	17.40	2	33	7.8	58.4	16.86	2	36	8.6	5.1	15.81	5	41	9.8	1.6
16.99	2	29	6.9	5.1	17.62	2	33	7.8	0.2	16.09	5	36	8.7	0.2	17.47	2	40	9.8	1.8
16.54	2	29	7.0	51.0	17.30	2	32	7.8	2.8	17.25	2	36	8.7	0.3	17.45	2	41	10.0	59.4
17.54	2	29	7.0	4.4	17.52	2	32	7.8	3.0	15.19	7	36	8.7	2.3	17.48	2	41	10.0	0.0
17.33	2	29	7.1	2.4	16.90	2	33	7.8	3.6	17.50	2	36	8.8	53.8	16.96	2	42	10.2	56.9
15.24	7	30	7.2	53.6	17.45	2	33	7.8	5.4	17.30	2	36	8.8	55.4	16.85	2	42	10.2	57.4
16.12	6	30	7.2	54.2	17.50	2	33	8.0	53.3	17.52	2	37	8.8	57.4	16.46	2	42	10.2	59.8
16.16	6	30	7.2	56.6	17.48	2	33	8.0	54.0	17.40	2	37	8.8	58.0	16.80	2	42	10.2	0.4
17.35	2	30	7.2	57.9	17.17	2	33	8.0	54.6	17.48	2	36	8.8	58.4	17.36	2	42	10.2	1.6
17.33	2	30	7.2	59.1	14.54	9	33	8.0	55.1	17.28	2	37	8.8	58.5	16.50	2	43	10.3	59.6
17.64	2	30	7.2	0.6	17.10	2	33	8.0	55.6	14.38	10	36	8.8	58.6	16.10	6	43	10.3	1.0
17.22	2	30	7.2	1.7	13.10	15	33	8.0	56.0	17.26	2	36	8.8	59.8					
17.58	2	30	7.2	1.8	17.32	2	33	8.0	57.8	16.97	2	37	8.8	0.3					
17.35	2	30	7.2	2.1	17.20	2	33	8.0	59.0	17.16	2	37	8.8	1.2					
17.42	2	30	7.2	2.3	17.50	2	33	8.0	59.2	17.38	2	37	8.9	55.5					
17.50	3	30	7.2	3.4	15.99	7	33	8.0	1.2	17.52	2	37	8.9	59.4					
16.71	2	30	7.2	5.4	17.22	2	33	8.0	4.3	17.17	2	37	8.9	1.1					
17.64	2	30	7.3	0.6	17.34	2	33	8.0	4.4	17.45	2	37	8.9	4.2					
17.14	2	30	7.3	2.2	16.82	2	33	8.0	4.9	15.80	7	37	9.0	53.6					
17.45	2	30	7.3	6.6	17.02	2	33	8.0	5.6	17.50	2	37	9.0	54.7					

Area 136. Center for 1900: $20^h\,10^m$ − 15° 10′ (15′ × 15′)

1—60					61—120					121—180					181—240					241—300				
Mag.		α 9^m	x	$y-10'$	Mag.		α 9^m	x	$y-10'$	Mag.		α 9^m	x	$y-10'$	Mag.		α 9^m	x	$y-10'$	Mag.		α 9^m	x	$y-10'$
		s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″			s	′	′ ″
17.21	3	14.9	89.10	6 41	15.60	9	23.0	91.07	7 21	17.20	2	34.4	93.82	7 44	17.47	3	45.1	96.39	7 04	16.32	7	54.2	98.59	6 10
16.92	3	14.9	89.10	10 53	17.24	2	23.2	91.10	3 52	16.03	8	34.4	93.83	11 36	8.62w	8	45.5	96.50	5 16	15.79	9	54.2	98.60	14 30
17.29	3	15.1	89.14	11 29	17.54	2	23.2	91.11	9 48	16.63	5	34.5	93.85	5 00	14.46	11	45.6	96.52	11 16	17.62	3	54.4	98.65	3 09
17.05	3	15.1	89.15	0 45	16.41	5	23.4	91.14	9 08	17.44x	2	34.5	93.86	8 12	17.23	3	45.7	96.54	10 41	17.09	3	54.6	98.70	0 08
16.00	8	15.2	89.17	7 15	17.63	1	23.7	91.23	14 51	17.82	2	34.7	93.90	3 56	17.76	2	45.9	96.61	1 50	17.53	3	54.8	98.75	10 05
17.55	3	15.3	89.21	4 57	17.24	1	23.8	91.24	14 37	17.05	3	34.8	93.93	14 32	11.28w	13	46.3	96.70	7 18	17.13	3	54.9	98.77	6 08
17.63	3	15.5	89.25	4 57	16.40	5	23.8	91.25	7 06	17.71	2	35.3	94.02	0 19	15.20	9	46.5	96.75	0 24	17.30	3	55.0	98.80	0 27
16.44	5	15.6	89.27	3 21	17.39	2	23.8	91.26	4 19	13.83	14	35.3	94.03	13 22	16.20	8	46.7	96.78	14 30	17.29	3	55.5	98.92	14 59
15.61	9	16.5	89.49	4 22	17.62	3	23.9	91.27	9 29	17.74	1	35.6	94.09	12 43	17.14	3	46.8	96.79	7 48	17.94	2	55.6	98.95	6 56
17.00	3	16.5	89.51	0 53	16.45	5	24.2	91.34	2 03	14.54	10	35.6	94.10	3 31	17.27	3	47.0	96.84	6 14	17.04	3	55.8	98.99	1 59
16.76	3	16.7	89.55	0 33	16.41	5	24.3	91.37	6 49	17.10	3	35.8	94.15	0 12	16.42	5	47.0	96.85	12 54	15.44	9	56.1	99.06	10 26
17.14	3	16.9	89.60	10 52	17.45	3	24.8	91.50	13 42	17.42	3	35.8	94.16	2 09	17.27	3	47.0	96.86	10 59	17.22	3	56.2	99.07	5 02
17.20	1	17.0	89.63	13 18	17.48	2	24.9	91.53	10 06	17.43	3	36.0	94.20	13 38	17.35	3	47.3	96.92	3 22	17.39	3	56.2	99.07	9 35
16.76	3	17.1	89.65	12 07	17.65	3	25.0	91.54	8 57	17.68	3	36.2	94.26	8 50	17.60	2	47.6	97.00	7 10	17.70	2	56.3	99.09	0 50
17.74	1	17.6	89.74	6 48	17.79	1	25.0	91.54	8 20	14.79	9	36.8	94.39	6 27	17.78	2	47.6	97.00	6 01	17.42	2	56.4	99.12	0 34
15.46	9	17.6	89.76	3 28	17.60	2	25.0	91.54	4 36	16.11	8	36.9	94.43	6 57	17.75	3	47.7	97.03	11 22	17.50	2	56.4	99.13	2 36
17.00	1	17.6	89.76	14 33	14.93	10	25.0	91.54	12 47	13.85	13	36.9	94.43	9 33	16.44	5	47.7	97.03	13 30	17.66	2	56.4	99.13	12 01
17.55	3	17.8	89.81	0 52	17.71	3	25.1	91.58	4 03	16.74	3	36.9	94.43	8 19	15.86	9	47.8	97.05	3 02	17.57	3	56.5	99.16	13 27
17.02	3	18.0	89.84	1 26	16.95	3	25.2	91.60	11 05	16.98	3	37.0	94.45	12 07	17.15	3	47.9	97.08	3 45	17.87	2	56.6	99.17	3 15
17.22	3	18.0	89.85	3 11	17.52	2	25.9	91.76	13 18	16.48	5	37.1	94.47	2 58	17.58	2	48.0	97.10	3 39	17.47	3	56.7	99.19	3 51
15.24	8	18.0	89.85	6 58	17.63	3	25.9	91.76	8 40	17.80	2	37.8	94.64	2 23	13.10	14	48.2	97.15	7 41	17.27	3	56.9	99.26	2 09
17.58	3	18.0	89.86	9 08	17.53	3	25.9	91.77	9 59	17.39	3	38.3	94.75	3 37	17.77	3	48.2	97.16	12 27	17.60	3	56.9	99.26	0 29
17.07	3	18.0	89.86	6 02	17.57	3	26.3	91.84	9 40	17.85	2	38.3	94.76	6 58	17.35	3	48.4	97.19	7 08	16.77	3	57.6	99.43	7 34
16.82	3	18.2	89.90	10 30	17.79	1	26.3	91.86	3 52	17.38	3	38.5	94.81	7 10	15.57	7	48.6	97.24	7 37	14.20	13	57.7	99.45	13 02
17.54	3	18.3	89.92	6 11	16.15	8	26.5	91.90	8 19	17.92	2	38.7	94.86	5 49	17.33	3	48.6	97.25	14 35	16.80	3	58.0	99.52	14 15
17.18	3	18.5	89.98	6 23	14.28	12	26.9	92.00	14 05	16.35	5	38.8	94.87	10 02	16.24	8	48.7	97.27	10 51	17.66	2	58.1	99.56	0 09
17.47	3	18.6	89.99	6 10	17.15	3	26.9	92.00	13 50	15.67	9	39.0	94.92	9 07	16.85	3	48.9	97.32	12 43	17.74	1	58.4	99.63	14 33
17.14	3	18.6	89.99	4 43	15.64	9	27.2	92.05	1 05	17.31	3	39.1	94.96	2 34	17.73	2	48.9	97.32	9 51	17.75	2	58.4	99.63	7 41
17.17	3	18.6	90.00	6 26	15.02	9	27.2	92.06	8 19	17.85	1	40.3	95.25	9 55	17.82	2	49.3	97.42	8 28	16.04	8	58.5	99.65	11 06
17.22	3	18.8	90.04	6 51	17.52	3	27.3	92.10	4 45	16.53	7	40.4	95.27	3 55	17.23	3	49.4	97.45	1 55	17.78	2	58.5	99.65	2 07
15.06	9	18.8	90.04	3 30	16.74	3	27.3	92.11	5 56	14.73	11	40.5	95.29	14 40	14.34	10	49.5	97.47	6 06	16.41	5	58.6	99.66	12 36
17.62	2	18.8	90.06	8 47	17.05	2	27.5	92.14	13 09	15.75	8	40.7	95.34	8 33	17.17	3	49.6	97.50	9 02	17.66	2	58.6	99.66	0 00
17.54	2	19.2	90.14	7 00	17.33	3	27.5	92.14	0 50	17.32	3	40.7	95.35	3 01	17.59	3	49.6	97.50	13 52	17.58	3	58.8	99.71	13 02
16.41	5	19.2	90.15	6 54	17.40	2	27.7	92.19	1 55	17.58	3	40.9	95.39	0 30	16.14	6	49.6	97.50	13 34	17.48	3	59.0	99.74	1 37
17.61	3	19.3	90.17	1 29	17.32	3	27.7	92.20	5 34	17.62	2	41.0	95.40	8 23	17.34	3	49.8	97.55	7 21	17.73	2	59.0	99.76	5 12
17.70	3	19.4	90.21	9 39	17.68	3	27.9	92.24	7 52	15.33	8	41.2	95.44	10 26	15.36	9	50.0	97.58	13 06	17.72	2	59.0	99.76	9 40
17.24d	1	19.5	90.23	2 49	16.58	5	28.1	92.29	1 49	17.25	3	41.6	95.55	8 19	17.53	2	50.1	97.60	7 53	17.26	3	59.0	99.76	6 38
17.62	3	19.5	90.23	3 09	16.58	3	28.1	92.31	5 49	15.94	8	41.6	95.56	11 40	17.51	3	50.1	97.60	0 45	16.48	5	59.4	99.85	7 53
17.64	3	19.6	90.26	12 06	17.68	3	28.3	92.33	0 55	17.04	3	41.7	95.57	7 39	15.56	9	50.3	97.66	4 28	17.59	3	59.5	99.87	8 47
17.28	2	19.7	90.27	5 58	17.45	3	28.3	92.34	12 39	16.98	3	41.8	95.61	10 20	17.66	2	50.5	97.69	11 59	16.75	3	59.5	99.87	10 10
17.74	1	19.8	90.30	9 49	14.24	13	28.3	92.35	3 02	16.49	5	41.9	95.63	3 30	17.86	2	50.7	97.74	4 47	14.12	12	59.8	99.96	1 07
15.70	9	19.8	90.30	12 52	16.65	5	28.7	92.46	2 32	16.26	8	42.0	95.64	11 18	17.16	3	50.7	97.75	14 20	16.72	3	60.0	0.00	8 59
17.66	2	19.8	90.31	4 34	17.00	3	28.8	92.47	12 37	16.05	8	42.0	95.66	5 51	15.36	9	50.9	97.80	14 24	15.80	8	60.0	0.01	5 17
17.68	2	20.0	90.34	1 33	17.66	3	28.9	92.50	9 29	17.92	2	42.2	95.70	7 42	17.78	2	50.9	97.81	1 40	17.27	3	60.2	0.06	9 33
16.45	5	20.0	90.34	12 39	16.30	7	29.2	92.57	0 40	16.59	5	42.4	95.75	11 11	17.55	3	51.1	97.86	13 31	10.27w	10	60.2	0.06	11 40
17.66	3	20.0	90.34	6 31	17.74?	1	29.4	92.60	10 40	17.15	3	42.5	95.77	2 15	16.30	7	51.2	97.88	9 56	17.56	3	60.6	0.14	12 26
16.91	3	20.5	90.44	8 41	16.70	5	30.7	92.93	4 59	15.52	5	42.8	95.85	7 21	16.55d	1	51.5	97.96	8 41	17.08	3	60.6	0.14	8 19
17.68	3	20.6	90.47	6 36	13.64	13	30.8	92.96	8 32	16.91	3	43.0	95.91	8 32	17.62	2	51.5	97.96	7 30	15.53	9	60.6	0.16	2 15
14.43	12	20.6	90.47	0 47	16.08	5	31.2	93.04	13 21	17.62	2	43.2	95.96	0 19	17.21	3	51.5	97.96	1 50	17.79	3	60.8	0.21	8 07
17.63	1	20.9	90.54	14 42	17.29	3	31.3	93.08	14 28	16.78	3	43.3	95.97	2 59	15.60	9	52.0	98.07	3 14	16.41	5	60.9	0.22	7 29
14.80	1	20.9	90.55	13 57	17.36	3	31.7	93.18	14 24	17.36	3	43.5	96.02	12 08	17.43	3	52.3	98.14	1 19	15.80	8	61.0	0.25	8 47
17.31	3	20.9	90.56	7 59	16.44	5	32.0	93.24	7 31	16.26	1	43.5	96.03	5 12	17.02	3	52.6	98.20	12 02	16.97	3	61.0	0.26	11 58
16.84	3	21.1	90.60	5 28	17.85	2	32.0	93.25	6 54	17.23	3	44.1	96.15	5 39	17.65	2	52.8	98.27	2 55	16.38	7	61.4	0.34	9 15
17.52	2	21.5	90.69	5 52	17.85	2	32.3	93.31	3 00	16.15	8	44.3	96.21	3 17	16.91	3	53.1	98.33	8 15	17.76	2	61.8	0.42	8 06
17.51	3	22.0	90.83	1 50	17.15	3	32.7	93.40	6 01	16.82	3	44.4	96.23	10 54	17.74	2	53.2	98.36	10 20	17.12	3	61.8	0.43	6 26
14.87	10	22.1	90.85	0 12	17.85	2	33.4	93.57	8 22	16.76	4	44.5	96.26	6 09	15.26	9	53.4	98.39	2 26	16.91	3	62.0	0.47	13 08
14.80	10	22.1	90.86	9 03	14.67	10	33.4	93.57	7 27	17.00	3	44.7	96.31	1 27	17.70	3	53.5	98.42	10 11	14.86	9	62.1	0.51	10 14
16.23	8	22.2	90.88	5 45	17.53	3	33.4	93.58	14 01	16.24	8	44.9	96.34	0 14	17.50	2	53.6	98.45	9 23	17.13	3	62.2	0.53	9 05
17.63	2	22.5	90.94	3 50	14.33	12	34.1	93.75	12 41	17.79	1	44.9	96.36	11 08	17.46	3	53.7	98.47	9 57	17.42	3	62.3	0.54	7 55
17.27	3	22.7	91.01	10 35	16.34	8	34.1	93.75	5 49	17.23	2	45.1	96.39	0 28	17.46	2	54.0	98.56	10 42	17.02	3	62.3	0.55	13 49

25 prec. + $84^{s}3$, + 4′ 28″

301—320				321—340				341—360				361—364			
Mag.	α 10^m	x	$y-10'$	Mag.	α 10^m	x	$y-10'$	Mag.	α 10^m	x	$y-10'$	Mag.	α 10^m	x	$y-10'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
16.45 5	2.5	0.60	0 07	15.76 2	6.4	1.56	14 50	15.97 8	10.5	2.53	9 16	16.64 3	15.1	3.66	9 08
17.68 2	2.7	0.66	9 59	17.08 3	6.6	1.60	3 20	17.77 3	11.7	2.83	3 59	17.28 3	15.6	3.77	12 00
17.68 2	3.1	0.74	6 09	17.32 3	6.7	1.63	1 30	15.19 9	12.0	2.89	6 33	17.57 3	16.3	3.95	11 05
15.59 9	3.1	0.75	0 24	16.41 5	6.8	1.66	0 49	16.80 2	12.0	2.90	9 58	17.46 3	16.4	3.96	4 25
17.40 3	3.1	0.75	1 23	16.32 5	7.0	1.71	12 19	17.29 2	12.1	2.93	4 38				
17.68 2	3.1	0.76	1 49	17.66 2	7.7	1.86	2 04	17.52 1	12.2	2.95	14 46				
17.53 2	3.6	0.88	7 10	15.00 9	7.7	1.86	5 01	16.43 5	12.6	3.05	0 02				
17.53 3	3.7	0.91	11 33	17.53 3	8.1	1.94	0 04	17.56* 2	13	3.1	7 48				
17.66 2	3.9	0.94	5 10	17.57 3	8.2	1.97	11 09	15.39 9	12.9	3.13	7 19				
14.93 10	4.0	0.98	11 21	17.00 3	8.3	2.00	12 44	15.68 9	13.0	3.15	11 56				
13.43 14	4.2	1.03	5 54	11.99: 1	8.6	2.07	14 09	17.66w 2	13	3.2	0 24				
17.67 3	4.4	1.06	10 06	15.36 9	9.0	2.17	13 18	15.95 8	13.4	3.25	5 53				
17.68 3	4.8	1.16	7 02	16.45 1	9.3	2.26	14 33	17.61 3	13.7	3.30	6 37				
15.39 9	4.9	1.17	12 43	17.07 3	9.3	2.26	1 53	15.43 9	13.7	3.30	4 40				
15.49 8	5.0	1.20	6 11	15.62 9	9.5	2.30	7 32	14.98 10	14.1	3.41	3 14				
17.39 3	5.1	1.23	12 59	17.50 3	9.7	2.35	13 03	17.07 3	14.5	3.49	1 31				
15.09 9	5.2	1.26	11 46	17.04 3	10.1	2.44	12 55	17.88 2	14.5	3.51	4 15				
17.72 3	5.5	1.32	6 00	16.10 5	10.2	2.46	2 47	17.56 3	14.6	3.53	10 18				
17.46 2	6.2	1.51	10 07	12.18: 1	10.2	2.46	9 55	17.20 3	15.1	3.64	10 47				
16.45 5	6.3	1.52	11 06	16.39 5	10.2	2.47	7 58	12.99 14	15.1	3.64	4 03				

25 prec. + $84^{s}.3$, + 4′ 29″

20^h Area 136. Supplementary Stars $-14°$, $-15°$

1s—30s				31s—60s				61s—90s				91s—120s				121s—150s			
Mag.	α 9^m	x	$y-10'$	Mag.	α 9^m	x	$\frac{y-70'}{y-10'}$	Mag.	α 9^m	x	$y-70'$	Mag.	α 9^m	x	$\frac{y-70'}{y-10'}$	Mag.	α 9^m	x	$\frac{y-70'}{y-10'}$
	s	′	′		s	′	′		s	′	′		s	′	′		s	′	′
17.49 2	3	86.3	3.0	16.85 2	11	88.2	4.6	15.83 7	24	91.3	56.2	15.88 7	40	95.2	55.3	16.26 7	54	98.6	59.8
14.92 9	4	86.4	2.8	17.71 2	11	88.2	5.4	17.08 2	24	91.3	59.1	17.46 2	42	95.6	55.4	17.60 2	55	98.7	15.3
16.03 7	4	86.4	5.5	17.08 2	11	88.2	7.6	17.20 2	27	92.0	55.6	17.32 2	42	95.6	56.0	17.48 2	55	98.7	15.4
17.58 2	4	86.6	7.0	16.20 4	12	88.3	8.1	17.58 2	27	92.0	56.6	16.06 7	42	95.7	55.8	16.03 7	55	98.8	55.2
17.49 2	5	86.7	8.5	16.16 4	12	88.4	0.8	17.60 2	27	92.2	56.2	17.64 2	43	96.0	58.8	17.38 2	56	99.0	55.4
17.40 2	6	86.8	8.7	17.01 2	12	88.5	59.5	17.62 2	28	92.2	57.0	14.31 11	44	96.1	56.9	17.63 2	56	99.1	56.4
15.95 7	6	86.9	2.1	15.51 7	13	88.6	0.6	17.43 2	28	92.3	56.2	17.71 2	44	96.1	58.0	17.36 2	57	99.3	57.4
17.60 2	6	87.0	3.8	16.35 4	13	88.6	5.2	16.44 4	29	92.4	59.4	17.28 2	44	96.1	15.7	14.43 10	57	99.3	57.9
16.79 2	6	87.0	6.9	16.95 2	13	88.6	6.9	17.43 2	30	92.6	56.4	17.07 2	45	96.3	58.3	16.65 2	59	99.7	55.1
12.57 11	7	87.1	1.3	16.69 2	13	88.6	11.5	17.71 2	29	92.6	58.8	17.06 2	45	96.4	15.1	14.57 10	59	99.8	15.0
16.98 2	7	87.2	3.0	13.75 11	13	88.7	10.8	17.40 2	30	92.7	55.9	17.46 2	45	96.4	15.4	16.24 7	60	0.1	59.2
16.70 2	7	87.2	3.6	17.36 2	13	88.8	2.6	17.44 2	30	92.8	56.0	17.54 2	47	96.8	54.7	15.24 7	60	0.1	59.4
14.60 10	7	87.2	5.5	17.66 2	14	88.8	3.6	17.66 2	31	93.0	57.4	16.05 7	47	96.8	55.4	16.88 2	61	0.2	59.2
17.12 2	7	87.2	9.6	10.70 12	13	88.8	4.4	16.70 2	31	93.1	57.6	17.66 2	48	97.0	55.8	16.22 4	62	0.4	56.5
17.26 2	8	87.4	5.3	17.26 2	13	88.8	9.6	16.21 4	31	93.1	58.0	16.11 7	48	97.1	55.8	15.06 8	62	0.4	59.0
13.00 11	9	87.6	3.2	17.59 2	14	89.0	2.5	17.73 2	32	93.3	58.0	16.23 7	48	97.1	58.8	17.61 2	62	0.5	59.0
16.25 4	9	87.6	7.0	16.66 2	14	89.0	2.6	17.40 2	33	93.4	55.8	17.66 2	48	97.2	56.3	17.59 2	64	1.0	58.4
17.25 2	9	87.6	7.1	13.20 12	14	89.0	7.5	17.62 2	34	93.6	56.8	16.54 2	48	97.2	57.8	15.09 7	66	1.5	59.0
17.11 2	9	87.6	10.0	17.52 2	17	89.6	59.0	17.68 2	34	93.6	58.3	17.30 2	49	97.4	55.0	17.60 2	68	1.8	57.0
16.25 4	10	87.8	4.7	17.38 2	18	89.8	57.2	16.90 2	34	93.7	55.4	16.75 2	49	97.4	58.6	17.00 2	70	2.3	58.2
17.52 2	10	87.9	2.5	14.71 8	18	89.8	59.0	16.28 7	34	93.7	59.4	16.66 2	49	97.4	15.4	17.36 2	70	2.4	57.6
17.52 2	10	87.9	7.7	17.49 2	18	89.9	57.0	15.03 8	34	93.8	56.8	16.84 2	50	97.5	59.6	14.98 8	70	2.5	59.4
16.58 2	10	87.9	10.5	16.33 4	18	90.0	59.4	17.58 2	35	94.0	55.8	17.49 2	50	97.6	15.4	16.10 7	71	2.7	57.4
17.71 2	10	88.0	3.6	17.50 2	20	90.3	56.8	12.30 14	35	94.0	59.2	16.46 4	51	97.9	57.6	17.71 2	72	2.8	59.2
16.99 2	10	88.0	5.0	17.20 2	20	90.4	58.2	16.32 4	36	94.1	55.4	16.70 2	52	98.1	58.4	17.52 2	73	3.1	57.6
16.70 2	10	88.0	5.2	17.58 2	21	90.6	58.4	15.14 7	36	94.2	57.2	16.90 2	53	98.2	55.6	17.60 2	75	3.7	59.0
17.50 2	10	88.0	6.5	16.60 2	22	90.8	56.6	17.69 2	37	94.4	57.6	16.81 2	53	98.2	58.8	15.41 7	76	4.0	59.4
12.22 14	11	88.1	8.2	16.72 2	23	91.1	58.1	17.20 2	38	94.7	58.4	16.22 7	53	98.2	59.4	17.54 2	77	4.2	58.4
16.88 2	11	88.1	11.4	17.34 2	24	91.2	57.7	15.26 7	39	94.8	58.4	17.63 2	53	98.3	56.4	17.70 2	78	4.2	6.0
17.46 2	11	88.2	2.9	17.60 2	24	91.2	58.8	17.36 2	39	95.0	56.2	17.55 2	54	98.5	57.6	17.34 2	78	4.2	11.4

25 prec. + $84^{s}.3$, + 4′ 28″

20^h Area 136. Supplementary Stars − 14°, − 15°

151s—160s				161s—170s				171s—180s				181s—182s			
Mag.	α 10^m	x	$y-70'$ / $y-10'$	Mag.	α 10^m	x	$y-10'$	Mag.	α 10^m	x	$y-10'$	Mag.	α 10^m	x	$y-10'$
	s	′	′		s	′	′		s	′	′		s	′	′
15.14 7	18	4.4	2.9	17.01 2	21	5.1	9.2	15.59 7	24	5.8	1.2	16.19 4	27	6.4	5.7
16.15 7	18	4.4	7.0	17.02 2	22	5.2	1.5	17.56 2	24	5.8	1.5	15.28 7	27	6.6	6.8
16.76 2	19	4.6	59.6	17.57 2	22	5.2	1.8	17.58 2	24	5.8	2.4				
14.51 10	19	4.6	4.8	17.71 2	21	5.2	6.8	16.76 2	24	5.8	7.2				
17.44 2	19	4.7	59.8	14.68 10	22	5.4	2.5	17.54 2	24	5.9	6.0				
16.38 4	20	4.8	0.2	15.69 7	23	5.4	6.2	14.61 10	24	5.9	8.4				
17.56 2	20	4.8	6.4	17.52 2	23	5.5	0.2	15.09 8	25	6.0	2.7				
14.64 10	20	4.8	9.9	11.49 14	23	5.5	1.3	17.56 2	25	6.0	3.9				
17.47 2	20	4.9	59.6	13.71 11	23	5.6	8.6	17.52 2	26	6.2	1.2				
17.44 2	21	5.1	9.0	15.97 7	24	5.7	9.9	14.73 9	26	6.3	8.6				

25 prec. + 84^s.3, + 4′ 29″

21^h Area 137. Center for 1900: 21^h 10^m − 14° 50′ (15′ × 15′) −14°

1—40				41—80				81—120				121—160				161—190			
Mag.	α 9^m	x	$y-50'$	Mag.	α 9^m	x	$y-50'$	Mag.	α 9^m	x	$y-50'$	Mag.	α 10^m	x	$y-50'$	Mag.	α 10^m	x	$y-50'$
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″
15.20 11	27.0	92.03	46 06	15.57 10	38.0	94.68	44 15	16.54 9	50.1	97.59	45 41	16.98 5	3.4	0.83	53 13	16.80 7	15.8	3.83	52 20
18.08 2	27.3	92.09	50 10	13.59 14	38.0	94.69	44 21	15.55 9	50.2	97.63	45 46	17.71 3	3.7	0.91	41 54	15.26 11	16.1	3.90	48 36
17.91 3	27.5	92.14	51 55	16.46 8	38.1	94.70	41 52	17.28 3	50.2	97.63	42 13	17.70 3	3.9	0.96	49 54	18.32 3	17.2	4.16	54 11
18.20 2	27.5	92.16	45 21	18.00 3	38.2	94.73	54 00	18.35 3	50.6	97.72	45 22	14.91 12	4.3	1.04	49 46	16.45 9	17.5	4.22	49 07
15.92 9	27.6	92.17	44 01	16.14 9	38.3	94.76	49 44	18.55 1	50.7	97.76	42 13	17.99 3	4.3	1.05	40 53	17.41 3	18.7	4.53	47 47
17.84 3	27.9	92.25	42 40	15.94 9	38.6	94.82	48 23	18.76 1	50.9	97.81	48 16	16.38 9	5.1	1.22	46 57	16.99 3	19.3	4.67	40 03
18.06 3	28.0	92.28	49 28	16.36 7	39.2	94.98	42 52	16.39 9	51.0	97.82	49 48	16.01 9	5.3	1.27	47 29	15.18 11	19.9	4.80	50 45
14.46 13	28.7	92.45	43 37	16.79 7	40.6	95.33	46 50	18.26 2	51.2	97.88	47 34	16.73 8	5.5	1.32	48 41	17.37 3	20.7	5.00	49 19
18.00 3	29.3	92.58	49 49	17.58 3	40.9	95.39	50 14	18.30 2	52.0	98.07	51 14	15.55 10	7.5	1.80	52 30	16.94 3	20.7	5.01	52 48
17.82 3	29.3	92.59	51 42	18.25 2	41.3	95.48	48 32	14.92 12	52.3	98.14	50 25	16.35 9	7.8	1.87	46 57	11.81w 14	21.3	5.14	47 44
17.37 1	29.8	92.71	40 53	18.55 1	41.3	95.48	42 51	17.92 2	52.5	98.19	50 20	14.10 13	8.0	1.92	46 17	18.11 3	21.3	5.16	54 21
13.87 14	29.9	92.73	54 27	17.93 2	41.6	95.55	40 33	16.51 9	53.9	98.53	48 53	17.98 2	8.0	1.93	48 37	12.65w 16	21.4	5.17	50 00
14.48 13	30.1	92.77	47 06	18.30 1	41.8	95.59	42 38	16.62 7	54.4	98.64	42 01	16.98 5	8.6	2.08	45 59	16.70 5	21.7	5.24	41 53
16.65 6	30.4	92.85	41 26	16.52 8	41.8	95.61	41 45	17.70 3	54.4	98.66	40 13	18.06 3	9.1	2.21	43 11	18.46 2	22.2	5.36	44 20
15.85 9	30.4	92.85	41 12	16.35 9	42.2	95.69	47 00	17.10 5	54.5	98.67	49 56	17.71 3	9.2	2.22	49 50	17.50 3	22.3	5.39	49 47
17.83 3	30.8	92.94	52 50	15.53 10	42.4	95.74	41 28	18.31 3	55.4	98.89	53 37	16.26 9	9.5	2.29	51 56	18.03 3	22.6	5.45	49 31
17.87 3	30.9	92.97	42 08	18.12 2	42.4	95.74	53 32	17.70 3	56.2	99.07	53 08	13.51 15	9.5	2.29	53 31	18.08 3	22.7	5.48	48 34
18.03w 2	31	93.0	47 18	17.42 3	43.3	95.97	47 56	18.62 1	56.8	99.22	52 26	16.72 8	9.9	2.40	51 43	17.45 3	23.0	5.54	46 22
14.66 12	31.0	93.00	49 29	17.99 3	43.4	96.00	51 07	14.93 10	56.9	99.25	40 48	17.90 2	10.0	2.43	48 46	18.18 2	23.1	5.57	41 57
16.74 4	31.1	93.03	49 09	17.40 3	43.8	96.08	50 07	18.09 3	57.1	99.29	53 09	17.90 3	10.5	2.52	46 00	18.39 1	23.4	5.66	41 29
11.63w 14	31.2	93.06	45 57	17.42 3	43.8	96.09	54 00	17.18 3	57.4	99.37	44 03	17.54 3	10.7	2.57	51 50	18.02 3	23.5	5.68	49 30
17.58 3	31.8	93.19	50 55	18.44 2	44.0	96.13	48 51	17.36 3	57.5	99.39	45 22	16.53 8	10.7	2.58	47 12	16.12 9	23.9	5.78	42 04
16.39 9	32.3	93.30	52 05	18.55 1	44.6	96.27	51 32	15.88 9	57.5	99.41	44 22	18.76 1	10.9	2.63	47 47	17.82 3	24.0	5.81	45 56
17.82 3	32.5	93.35	48 56	15.64 9	44.7	96.29	45 34	16.01 9	57.6	99.42	48 40	17.85 3	11.4	2.74	42 35	17.97 3	24.8	5.99	45 20
17.38 3	32.6	93.37	45 41	16.50 8	45.3	96.44	49 08	17.37 3	57.6	99.43	51 38	15.00 11	11.4	2.76	53 41	17.47 3	24.9	6.02	54 44
15.74 9	32.6	93.38	42 18	18.26 3	45.5	96.49	48 00	18.76 1	57.7	99.46	50 33	17.28 3	11.5	2.78	42 33	14.44 13	26.1	6.30	50 32
15.39 11	33.2	93.52	46 06	18.70 1	45.7	96.56	51 05	18.70 1	58.5	99.65	53 16	18.12 2	11.9	2.87	45 20	17.52 1	26.3	6.34	40 30
18.11 3	33.3	93.54	45 41	18.06 2	46.5	96.75	51 45	18.76 1	58.6	99.66	50 30	17.26 3	12.6	3.05	42 45	17.08 1	26.9	6.51	40 58
16.31 9	33.3	93.54	43 50	18.03 3	46.6	96.76	46 45	16.58 2	58.6	99.67	40 49	16.91 7	12.9	3.12	49 22	16.34 9	28.1	6.79	50 57
17.82 2	33.3	93.55	52 43	12.88 17	46.6	96.77	48 14	9.06w 8	58.7	99.68	48 58	17.94 3	13.1	3.17	41 29	16.82 5	28.8	6.96	44 16
17.00 5	33.4	93.57	52 10	15.16 11	47.1	96.87	50 31	18.55 1	59.4	99.86	42 10	17.86 3	13.1	3.18	42 41				
16.82 5	33.4	93.57	42 13	18.70 1	47.9	97.07	49 47	18.00 2	59.8	99.96	52 01	18.10 3	13.8	3.33	47 44				
18.13 3	34.6	93.88	47 21	17.95 3	47.9	97.08	41 37	18.62 1	60.2	0.04	43 39	17.59 3	13.9	3.34	48 53				
18.11 3	35.2	94.01	52 28	18.62 1	48.4	97.19	53 49	18.83 1	60.4	0.10	49 39	17.97 2	14.0	3.37	49 35				
15.77 9	35.5	94.07	52 44	17.44 3	48.8	97.30	41 27	17.28 3	61.7	0.41	42 13	16.99 5	14.0	3.37	44 42				
18.26 3	36.0	94.20	44 02	17.74 3	48.9	97.32	41 13	17.54 3	61.9	0.44	51 27	16.72 6	14.0	3.38	42 14				
15.40 10	36.8	94.41	45 06	17.49 3	48.9	97.32	47 47	18.14 2	62.8	0.67	44 53	15.54 9	14.5	3.50	51 07				
17.46 3	37.0	94.46	49 42	18.49 2	49.0	97.36	49 01	18.62 1	62.8	0.68	52 57	18.09 3	15.3	3.70	40 02				
18.28 2	37.5	94.57	49 29	18.15 3	49.4	97.44	53 38	17.41 3	62.9	0.71	43 28	17.77 3	15.6	3.77	40 19				
18.47 1	37.9	94.66	41 59	16.81 6	49.5	97.48	53 45	18.76 1	63.3	0.79	50 59	16.46 8	15.6	3.77	41 40				

25 prec. + 82^s.8, + 6′ 9″

21^{h} Area 137. Supplementary Stars − 14°

1s—20s

Mag.	α 9m	x	y−50′
	s	′	′
13.79 12	18	89.8	50.1
17.81 2	18	89.8	50.4
17.87 2	18	89.9	47.0
14.35 11	19	90.2	46.9
16.32 7	20	90.4	52.0
17.57 2	21	90.6	51.2
17.89 2	22	90.7	44.7
17.44 2	22	90.9	47.0
17.98 2	22	90.9	51.4
12.36 14	23	91.0	49.6
17.45 2	23	91.0	50.1
17.93 2	25	91.6	42.8
17.97 2	25	91.6	45.6
16.38 7	27	92.0	53.5
17.96 2	33	93.4	55.6
17.85 2	38	94.6	55.3
17.13 2	40	95.2	55.3
17.69 2	43	95.8	57.5
17.40 2	44	96.2	55.6
17.99 2	45	96.4	55.1

21s—40s

Mag.	α 9m	x	y−50′
	s	′	′
17.91 2	47	96.8	39.4
13.35 15	50	97.6	59.0
17.79 2	53	98.3	39.4
13.35 15	53	98.3	39.8
18.03 2	54	98.6	58.0
17.95 2	55	98.7	58.6
17.59 2	55	98.8	57.6
17.67 2	56	99.0	38.6
13.14 16	56	99.0	59.2
16.69 5	57	99.3	57.1
17.33 2	58	99.5	56.6
17.49 2	58	99.5	58.6
17.93 2	59	99.8	57.2
13.37 15	59	99.8	59.2
17.81 2	60	0.0	55.8
17.83 2	61	0.2	58.8
15.19 9	61	0.3	38.4
17.81 2	62	0.4	58.2
17.83 2	62	0.5	57.0
17.56 2	62	0.6	38.7

41s—60s

Mag.	α 10m	x	y−50′
	s	′	′
17.48 2	3	0.7	58.8
18.07 2	4	0.8	56.6
16.28 7	6	1.5	58.7
16.81 4	7	1.6	57.0
17.48 2	8	2.0	39.7
18.02 2	9	2.1	56.4
15.38 7	9	2.2	39.8
17.57 2	9	2.2	58.0
18.03 2	10	2.4	57.4
17.69 2	12	2.8	55.0
16.35 7	12	3.0	57.8
17.87 2	17	4.0	55.8
17.95 2	29	7.1	45.0
17.51 2	29	7.1	45.8
17.16 2	29	7.1	46.9
18.05 2	30	7.2	50.9
17.47 2	32	7.8	45.5
14.70 10	32	7.8	51.8
17.51 2	32	7.8	52.6
17.83 2	32	7.8	53.4

61s—67s

Mag.	α 10m	x	y−50′
	s	′	′
14.16 12	33	8.0	53.1
16.32 7	34	8.1	43.7
16.87 2	35	8.4	44.2
17.35 2	36	8.7	45.9
17.46 2	38	9.2	51.6
17.65 2	39	9.4	47.4
17.78 2	40	9.7	48.1

25 prec. + $82^{s}.8$, + 6′ 9″

22^{h} Area 138. Center for 1900: 22^{h} 11^{m} − 15° 0′ (20′ × 20′) − 14°, − 15°

1—30

Mag.	α 9m	x	y−60′ / y
	s	′	′ ″
17.94 1	58.1	85.05	8 03
17.63 1	58.1	85.06	4 50
17.27 1	58.2	85.08	3 57
16.09 8	58.5	85.14	56 17
17.86 1	59.0	85.28	6 29
14.53 13	60.0	85.49	51 26
17.37 3	60.0	85.49	57 05
16.97 1	60.0	85.50	4 45
17.41 1	61.4	85.86	3 08
15.60 10	61.7	85.92	55 01
15.17 12	62.0	85.99	57 29
17.94 1	63.0	86.22	6 08
17.50 3	63.3	86.29	58 35
16.72 1	63.4	86.32	9 21
18.11 3	64.7	86.64	55 22
17.36 3	65.5	86.82	59 12
16.72 6	66.0	86.94	56 42
16.95 5	66.2	86.99	50 38
18.13 3	66.6	87.09	0 32
17.80 3	66.9	87.17	1 28
18.16 3	67.9	87.43	52 28
16.12 8	68.2	87.50	53 04
17.19 1	68.9	87.68	9 40
13.50 15	69.6	87.83	54 36
14.13 1	69.7	87.86	6 32
17.60 3	70.0	87.93	1 45
13.47 14	70.3	88.00	0 16
17.42 3	70.3	88.01	54 19
16.72 1	70.9	88.14	6 38
17.94 3	72.3	88.47	52 30

31—60

Mag.	α 10m	x	y−60′ / y
	s	′	′ ″
14.08 15	12.6	88.54	3 18
17.19 1	12.8	88.61	9 33
18.06 3	13.5	88.78	52 37
17.40 3	14.8	89.08	54 01
16.78 1	15.6	89.28	9 46
17.68 3	17.6	89.75	54 38
13.38 16	17.8	89.79	52 44
16.70 5	17.8	89.80	55 42
18.18 1	18.7	90.02	56 56
16.19 8	19.2	90.16	5 13
18.25 1	19.3	90.18	3 19
17.66 3	21.4	90.67	3 57
15.16 11	21.4	90.68	57 54
16.58 8	23.9	91.29	50 54
15.87 8	24.6	91.45	4 27
16.61 8	25.1	91.58	59 51
18.08 3	25.6	91.71	2 28
18.28 3	25.7	91.73	59 59
17.29 3	26.7	91.94	59 25
16.45 8	27.4	92.12	5 26
16.91 1	27.6	92.17	7 26
15.47 11	28.1	92.31	2 14
16.88 5	28.3	92.34	50 53
18.02 3	29.9	92.73	3 10
17.99 3	30.0	92.75	3 49
17.85 3	30.2	92.79	59 28
16.28 1	30.6	92.90	8 34
17.27 5	32.1	93.27	56 54
15.87 8	32.1	93.27	58 18
16.39 8	33.4	93.58	54 03

61—90

Mag.	α 10m	x	y−60′ / y
	s	′	′ ″
18.06 3	33.6	93.63	3 54
15.77 2	34.0	93.72	6 40
15.64 10	34.0	93.73	57 43
17.01 4	34.2	93.77	55 26
17.57 3	34.3	93.81	52 31
17.85 3	35.0	93.95	57 40
14.46 13	35.2	93.99	0 09
16.00 8	35.2	94.01	57 36
17.78d 1	35.6	94.11	1 48
17.78 3	35.7	94.13	3 15
17.34 1	37.1	94.47	7 08
16.84 8	37.2	94.50	59 39
9.95w 7	37.5	94.58	56 02
16.81 3	37.6	94.60	4 01
16.42 8	37.6	94.60	51 13
18.13 3	38.5	94.80	54 16
15.89 2	38.8	94.88	6 55
18.50 2	38.9	94.90	52 50
17.94d 1	39.7	95.09	53 57
16.97 1	39.7	95.10	56 01
13.62 14	40.7	95.34	0 33
16.58 2	40.9	95.38	0 10
15.68 10	42.6	95.80	52 23
17.40 3	43.3	95.98	55 19
17.86 1	43.3	95.98	7 28
18.33 1	43.4	95.99	3 09
15.44 11	44.1	96.16	6 07
17.12 1	44.2	96.17	8 01
17.19 1	44.2	96.18	6 24
16.72 1	44.2	96.18	7 47

91—120

Mag.	α 10m	x	y−60′ / y
	s	′	′ ″
18.19 3	44.5	96.24	54 35
18.21 3	44.9	96.34	2 06
11.04w 13	45.0	96.38	50 33
18.02 1	45.6	96.53	9 29
18.11 3	46.0	96.63	1 31
17.86 3	47.1	96.88	5 53
17.86 1	47.5	96.97	8 20
15.46 11	48.3	97.18	51 19
16.75 8	49.4	97.44	53 22
15.54 11	50.1	97.60	54 37
15.26 11	50.2	97.62	53 38
16.79 8	50.5	97.71	53 02
16.54 8	50.9	97.80	53 52
18.06 2	51.2	97.88	1 24
18.10 2	52.0	98.08	50 38
18.40 1	52.1	98.09	0 15
16.35 8	52.1	98.10	52 57
17.34 1	52.1	98.11	9 06
16.80 5	54.1	98.58	4 12
16.83 5	54.5	98.67	55 56
18.10? 1	54.9	98.77	2 52
18.48? 1	56.1	99.04	53 51
17.34 1	56.2	99.08	6 36
15.46 11	56.8	99.23	2 21
16.98 5	57.6	99.43	0 54
16.10 8	57.9	99.50	52 49
17.56 3	58.9	99.73	58 20
13.13w 14	59.6	99.89	1 12
15.37 11	60.0	0.00	55 31
18.18 1	60.9	0.23	3 24

121—150

Mag.	α 11m	x	y−60′ / y
	s	′	′ ″
16.62 1	1.0	0.25	6 17
18.37 2	1.1	0.27	52 07
11.25w 13	1.2	0.30	3 11
17.41 1	2.7	0.66	4 49
14.81 1	3.4	0.82	9 17
16.86 5	3.5	0.84	52 21
13.51 15	5.4	1.29	3 39
14.21 15	6.0	1.46	2 22
18.10 1	7.5	1.80	5 30
18.09 3	7.6	1.82	59 28
17.91 3	8.1	1.94	57 18
17.03 5	8.1	1.94	58 41
18.10 1	8.8	2.13	0 19
17.48 3	9.2	2.22	59 00
17.31 3	9.5	2.29	57 41
13.78 15	9.5	2.29	53 18
17.78d 1	9.9	2.39	58 16
18.10 1	10.2	2.46	6 19
16.99 5	10.8	2.59	0 49
17.23 3	11.2	2.69	57 21
18.02d 1	11.3	2.72	0 57
16.43 8	12.0	2.89	56 00
15.75 9	12.0	2.89	54 03
16.62 1	12.3	2.98	4 54
17.75 3	12.4	3.00	53 31
17.40 3	12.7	3.08	50 18
18.10 3	14.8	3.58	59 30
14.99 13	15.6	3.77	54 20
17.43w 2	16	3.8	52 12
13.62 1	16.0	3.87	50 48

25 prec. + $81^{s}.0$, + 7′ 25″

$22^{\rm h}$ Area 138 − 14°, − 15°

151—160				161				1s—10s				11s—14s							
Mag.	α $11^{\rm m}$	x	y − 60′ / y	Mag.	α $11^{\rm m}$	x	y − 60′	Mag.	α $10^{\rm m}$	x	y − 60′	Mag.	α $10^{\rm m}$	x	y − 60′				
	s	′	′ ″		s	′	′ ″		s	′	′		s	′	′				
17.48 1	16.4	3.97	0 43	17.63 1	20.7	4.99	59 28	17.44 2	25	91.5	49.0	18.13 2	39	94.8	48.1				
14.95 1	16.5	3.99	4 54					17.74 2	27	92.0	49.0	17.05 4	43	95.9	49.3				
17.41 1	16.8	4.04	8 01					15.41 9	28	92.2	48.5	17.36 2	50	97.6	46.8				
12.75 1	17.3	4.18	8 39					16.90 4	29	92.5	46.5	18.07 2	52	98.0	48.4				
17.00 5	17.3	4.18	53 08					12.42 12	30	92.6	47.8								
17.63 1	19.0	4.59	1 01					17.99 2	32	93.3	47.6								
17.56 1	19.7	4.74	2 37					16.44 7	36	94.2	47.0								
12.82 1	20.2	4.88	9 12					18.08 2	36	94.2	47.1								
17.48 1	20.4	4.92	59 05					14.63 11	38	94.6	49.6								
17.41 1	20.5	4.96	58 23					17.56 2	38	94.7	46.9								

25 prec. + $81^{\rm s}.0$, + 7′ 25″

$23^{\rm h}$ Area 139. Center for 1900: $23^{\rm h}\ 14^{\rm m}$ − 14° 50′ (20′ × 20′) − 14°

1—20				21—40				41—60				61—77				1s—11s			
Mag.	α $13^{\rm m}$	x	y − 50′	Mag.	α $13^{\rm m}$	x	y − 50′	Mag.	α $13^{\rm m}$	x	y − 50′	Mag.	α $14^{\rm m}$	x	y − 50′	Mag.	α $13^{\rm m}$	x	y − 50′
	s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′ ″		s	′	′
15.09 12	15.9	89.36	45 28	16.85 3	41.7	95.57	54 00	17.06 3	57.5	99.40	53 08	17.63 3	18.4	4.44	47 35	17.37 2	13	88.6	52.3
16.22 9	16.8	89.57	46 09	13.41 15	41.8	95.60	40 43	16.83 1	57.5	99.40	59 45	17.46 3	18.4	4.46	42 50	14.22 11	36	94.2	37.8
14.83 12	18.8	90.05	50 44	17.77 3	42.1	95.67	51 27	14.27 14	57.8	99.48	43 33	16.60 8	18.6	4.49	45 57	15.49 9	46	96.6	38.1
17.67 3	19.2	90.15	51 32	17.88 3	42.2	95.69	50 43	15.49 10	58.4	99.62	45 09	15.54 10	20.6	4.97	55 21	16.58 7	48	97.1	36.8
17.66 3	19.5	90.23	50 39	16.89 7	44.0	96.13	52 30	17.82 3	59.0	99.76	51 43	17.49 3	20.6	4.98	46 10	17.01 2	57	99.3	37.4
17.03 7	22.5	90.96	42 21	12.90 15	44.5	96.25	58 50	16.80 3	61.5	0.36	57 48	17.61 3	21.2	5.13	55 29	17.71 2	59	99.8	39.6
17.30 3	22.9	91.05	54 55	16.07 10	46.1	96.64	51 03	18.30 1	62.2	0.53	50 19	17.62 3	25.1	6.06	54 31	15.64 8	64	0.8	39.6
17.69 3	23.1	91.09	46 29	18.29 3	48.8	97.29	47 08	17.96 3	62.3	0.54	41 48	18.14 1	25.5	6.14	45 18	18.33 2	69	2.2	38.8
15.29 11	23.4	91.14	43 58	15.52 10	49.2	97.40	52 19	17.75 3	62.7	0.66	46 39	17.14 3	26.8	6.47	49 27	16.00 7	74	3.5	38.2
17.91 1	24.1	91.32	59 38	16.90 7	50.7	97.75	50 30	17.70 3	64.3	1.05	47 33	17.55 3	27.1	6.54	49 12	17.49 2	99	9.4	47.6
13.82 15	26.3	91.68	45 29	18.13 3	50.7	97.74	49 07	18.03 1	65.4	1.30	50 24	18.03 1	30.2	7.31	41 29	15.82 8	100	9.6	44.0
16.64 7	28.6	92.42	45 22	17.08 7	51.9	98.06	49 10	18.39 3	65.7	1.38	52 43	17.13 3	30.5	7.38	45 30				
12.52 15	28.7	92.46	57 07	15.48 11	53.5	98.42	44 22	18.36 2	67.0	1.69	46 49	16.95 1	30.8	7.45	58 18				
17.21 3	29.3	92.59	56 59	13.89 15	53.5	98.43	46 09	17.56 3	67.9	1.89	49 04	15.76 10	33.0	7.97	53 21				
16.76 1	30.0	92.75	58 07	18.22 2	54.8	98.75	44 50	17.21 3	68.0	1.92	52 55	15.36 12	33.2	8.03	45 22				
13.57 15	33.6	93.62	41 12	17.05 5	55.0	98.80	54 33	15.14 11	68.3	2.01	58 12	17.38 3	35.4	8.54	52 30				
17.96 3	33.8	93.68	44 14	17.85 3	55.2	98.86	57 35	17.39 3	69.3	2.25	45 08	17.57 1	35.7	8.62	40 49				
16.12 9	37.2	94.51	53 05	18.09 3	55.3	98.88	53 36	16.10 9	72.8	3.09	55 38								
14.02 15	39.4	95.02	52 53	9.99w 7	55.4	98.91	47 47	18.14 2	74.6	3.53	46 02								
16.14 8	41.2	95.44	48 10	16.57 7	57.3	99.35	46 22	15.88 10	77.0	4.10	47 24								

25 prec. + $78^{\rm s}.5$, + 8′ 11″

NOTES TO THE CATALOGUE

Nearly all of the stars requiring special mention are doubles which have been measured differently at Groningen and at Mount Wilson. On that account the necessary comment can be expressed in tabular form. Thus the first entry in the table below relates to a double star in Area 18 whose catalogue coordinates are $x = 4'.48$, $y = 2'\,31''$. The catalogue magnitude is the combined brightness of the components as determined at Groningen. At Mount Wilson both components were measured, the resulting magnitudes being those shown in the third column of the table.

The second entry represents the alternative case, in which the components were measured separately at Groningen and appear in the *Catalogue* as separate stars, whereas at Mount Wilson they were measured as a single star having the magnitude given in the third column.

Objects requiring special comment are distinguished by numbers enclosed in parentheses in the third column. These refer to remarks at the end of the table.

S. A.	Coordinates *x*	Coordinates *y*	M. W. Mag.	No. Values
18	4'.48	2' 31"	18.36 18.37	2 2
19	97.74 97.74	5 45 5 46	17.00	6
	2.23 2.23	9 00 8 59	16.79	6
	2.90 2.93	8 06 8 07	17.20	2
22	96.88 96.91	13 55 13 54	17.01	9
	97.67 97.67	17 54 17 55	17.10	5
	8.3	14 54	(1)	
23	91.05	59 40	17.62 18.04	1 1
24	95.86 95.88	58 54 58 52	16.32	7
34	99.19 99.22	50 37 50 33	16.59	2
38	3.00	11 36	(2)	
39	92.04	50 28	16.34 15.27	6 7
	95.63	54 05	17.87 17.82	2 1
	96.23	55 23	17.16 16.88	2 6
	97.14 97.18	55 38 55 39	16.57	5
	97.98	47 43	17.90 17.77	2 1
	0.91	48 44	17.67 16.64	2 7
40	93.12	58 22	13.92 18.02	12 2
	97.55	2 10	17.61 18.30	2 2
	99.79	58 13	17.08 18.24	6 2
	99.80 99.83	2 14 2 15	17.18	3
	0.02	57 03	16.00 16.96	8 6
41	1.75 1.77	50 23 50 20	15.96	3
42	92.86 92.91	4 55 4 55	17.25	2
48	97.81	8.08	17.28 17.39	6 1
49	89'.98	41' 14"	16.61 16.77	7 6
	0.63 0.67	49 11 49 09	13.88	11
51	2.78	4 56	13.84 14.78	12 8
54	96.21	0 12	(3)	
57	6.68	54 04	(2)	
63	96.11	4 39	16.31 16.94	8 2
	96.47 96.53	8 22 8 25	16.84	2
	96.59	9 27	15.95 16.94	6 1
	98.92	3 48	16.58 17.30	7 2
	0.58	4 32	16.98 17.01	3 2
	6.89	9 34	16.68 18.00	7 1
64	87.93	3 52	16.88 17.81	2 1
	88.52	51 08	13.64 14.40	6 3
	89.78	55 43	12.80 16.84	14 3
	90.72	51 07	17.30 18.14†	2 2
	90.91	54 12	14.81 17.52	9 1
	91.45	57 58	13.50 16.97	15 3
	92.44	4 40	12.12 17.15	13 2
	92.52	4 49	17.19 17.33	2 1
	94.30	2 17	18.02 18.18†	2 2
	96.71	59 04	17.98 18.19	2 1
	97.56	2 25	14.87 17.72	10 2
	98.02	0 33	18.06† 18.32†	2 2
	98.55	57 56	17.67 17.87	2 1
65	97.05 97.06	13 45 13 43	18.16	2
	97.49 97.50	6 15 6 13	15.18	9
65	97'.83 97.88	5' 45" 5 44	17.76	2
	10.28 10.34	12 44 12 45	18.11	2
	10.95 10.97	7 42 7 44	17.05	3
66	3.22 3.22	12 27 12 25	17.54	6
71	11.83	5 30	14.91 15.78	10 4
73	17.68 17.69	52 36 52 33	17.84	2
88	13.13 13.17	11 12 11 11	16.83	7
	15.48 15.48	14 21 14 23	17.43	4
98	94.05	16 00	15.86 17.28	6 2
	0.25	6 24	16.47 17.32	6 2
	3.78	14 25	12.57 14.49	14 8
	7.50	7 07	16.55 17.57	2 2
102	3.34	24 38	(2)	
106	92.66	−1 49	(2)	
109	95.44	0 23	15.62 18.04	8 2
	0.60	11 30	16.49 17.66	5 2
111	96.98 97.05	9 13 9 11	18.46	2
	97.85	0 18	17.94 18.17	2 2
112	4.84	9 05	18.06 18.25	2 2
123	95.90	2 47	17.50 17.54	1 1
	96.12	0 02	(6)	
	96.19	59 55	14.20 16.29	4 2
	96.51	56 32	17.77† 18.33	2 1
	98.36 98.36	57 49 57 46	17.25	1
	99.11	6 37	13.13 16.15	9 3
	0.69 0.71	59 16 59 18	17.45	2

NOTES TO THE CATALOGUE—*Continued*

S. A.	Coordinates		M. W. Mag.	No. Values
	x	*y*		
123	1′.77	58′ 36″	17.51	2
	1.78	58 38		
124	90.16	10 44	17.51 17.71	1 1
	96.50	8 56	16.30 17.92	6 2
	96.80	19 40	13.96 16.81	11 1
	99.89	16 53	14.50 16.30	11 5
125	0.64	10 39	16.04	7
	0.66	10 42		
	7.35	4 26	17.01 17.25	2 2
126	94.15	52 57	17.81	2
	94.17	52 51		
132	93′.65	7′ 58″	16.94 17.07	2 2
	98.65	1 35	17.60 17.76	2 2
	0.4	57 36	(4)	
133	98.53	5 52	16.58	4
	98.53	5 50		
134	2.51	54 59	15.08	5
	2.53	55 01		
135	92.16	1 14	14.67	7
	92.17	1 16		
	92.38	56 38	17.08	2
	92.39	56 35		
	94.53	58 17	16.86	2
	94.53	58 18		
	94.62	54 49	16.60	2
	94.65	54 51		
135	97′.68	54′ 36″	17.63	1
	97.69	54 36		
	99.85	58 42	16.57	6
	99.86	58 43		
	0.75	51 37	17.44	1
	0.75	51 35		
	1.20	55 18	15.64	7
	1.21	55 16		
	2.37	53 42	16.08	6
	2.39	53 43		
	4.02	2 33	14.80 17.33	8 2
136	2.07	14 09	11.89 15.25	15 7
	2.46	9 55	12.78 13.00	14 12
	3.1	7 48	(5)	

(1) Nebula. Measured at Mount Wilson only.

(2) Measured at Groningen and marked x. Object visible on Mount Wilson plates but too diffuse to measure. Probably nebula.

(3) Nebula. N. G. C. 3254.

(4) Measured at Mount Wilson only. Image diffuse, perhaps nebula.

(5) Measured at Mount Wilson only. Probably variable. Appears brighter than the star $x = 3'.30$, $y = 6' 37''$ by about 0.2 mag. on Mount Wilson plates but on Groningen plate appears 0.6 mag. fainter.

(6) Measured at Mount Wilson only.

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